

WORLD METEOROLOGICAL ORGANIZATION

CAGM REPORT NO. 20

GLOSSARY OF TERMS USED IN AGROMETEOROLOGY
(ENLARGED EDITION)

GENEVA, JANUARY 1984

INTRODUCTION
(Enlarged edition)

Agricultural meteorology is an applied science which is in the process of rapid development, spurred in particular by the need of many countries of the world for scientific advice and technical guidance to accelerate food production for a rapidly increasing population.

Agricultural meteorology is concerned with the interactions between meteorological and hydrological factors, on the one hand, and agriculture in the widest sense, including horticulture, animal husbandry and forestry, on the other. Specialists engaged in these disciplines have formulated a need for a glossary of agrometeorological terminology understandable not only to the practising agrometeorologists but also to the field workers, researchers, students and specialists in the related areas. Such a need was reconfirmed especially by the Members of WMO Regional Associations III and IV and the WMO/FAO/Unesco Interagency Group on Agricultural Biometeorology. The present Glossary of Agrometeorology is an initial attempt to place together in one compact volume terms that are considered useful to the agrometeorologists and others concerned. Close collaboration with FAO and UNESCO was maintained in the preparation of this glossary. It is hoped that this publication will promote the further collaboration and understanding among specialists.

In addition to purely agrometeorological terms, the Glossary includes some relevant pedological, agricultural and hydrological terms, terms pertaining to agrometeorological aspects of crop and animal diseases, and names of plants and animals, together with their latin names. Meteorological terms, which are found in the meteorological glossary, and of interest to agrometeorologists, have been included in this enlarged initial edition. It is intended to publish a simplified version of the Glossary, excluding meteorological terms, in the near future, especially for those people that do have ready access to the existing meteorological glossary. Appendix A contains a list of references which include some glossaries on other subject areas.

In general, the SI system of units is used in the Glossary, but in a few cases, where this was not possible, the user is referred to Appendix B which contains the SI Conversion factors. This table was taken from the Chambers Dictionary of Science and Technology, Revised Edition, (1974), W. & R. Chambers Ltd., Edinburgh.

It is planned that after this provisional edition, a revised volume will be produced to include material that is subsequently gathered through comments and suggestions from members of CAqM and other interested workers and specialists both in agrometeorology and in related disciplines.

APPENDIX A

LIST OF ABBREVIATIONS AND REFERENCES

- (AMS) Glossary of Meteorology (1959), American Meteorological Society, Boston, Mass.
- (CHOW) Handbook of Applied Hydrology, ed. Ven Te Chow (1964), Mc Graw-Hill, New York
- (CID) Multilingual technical dictionary on irrigation and drainage (1967), International Commission on Irrigation and Drainage, New Delhi
- (EB) The New Encyclopaedia Britannica, 15th Edition (1974), Helen Hemingway Benton, Chicago
- (CDST) Chambers Dictionary of Science and Technology, Revised Ed. (1974), W. & R. Chambers Ltd., Edinburgh
- (GG) Glossary of geology and related sciences with supplement (1962), American Geological Institute, Washington, D.C.
- (GHM) Guide to hydrometeorological practices, 2nd. ed. (1970), WMO-No 168. TP. 82, Geneva
- (IGH) International Glossary of Hydrology (1974), WMO-No 385, Geneva
- (MAM) Methods in Agricultural Meteorology, by L.P. Smith (1975), American Elsevier Publishing Company, Inc., New York
- (OD) The Shorter Oxford Dictionary on Historical principles, 2 vol. ed. C.T. Onions (1959), Oxford
- (W) Webster's 3rd new international dictionary, 2 vol. (1966), G. & C. Merriam, Springfield, Mass.
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APPENDIX B

CONVERSION FACTORS

Quantity	Unit	Conversion factor
Length	1 in.	= 25.4 mm
	1 ft	= 0.3048 m
	1 yd	= 0.9144 m
	1 fathom	= 1.8288 m
	1 chain	= 20.1168 m
	1 mile	= 1.609 34 km
	1 International nautical mile	= 1.852 km
	1 UK nautical mile	= 1.853 18 km
Area	1 in. ²	= 6.4516 cm ²
	1 ft ²	= 0.092 903 m ²
	1 yd ²	= 0.836 127 m ²
	1 acre	= 4046.86 m ² = 0.404 686 ha (hectare)
	1 sq. mile	= 2 589 99 km ² = 258 999 ha
Volume	1 UK minim	= 0.059 193 8 cm ³
	1 UK fluid drachm	= 3.551 63 cm ³
	1 UK fluid ounce	= 28.4131 cm ³
	1 US fluid ounce	= 29.5735 cm ³
	1 US liquid pint	= 473.176 cm ³ = 0.4732 l (litre)
	1 US dry pint	= 550.610 cm ³ = 0.5506 l
	1 Imperial pint	= 568.261 cm ³ = 0.5682 l
	1 UK gallon	= 1 201 US gallon
		= 4.546 l
		= 4.546 09 dm ³
	1 US gallon	= 0.833 UK gallon
		= 3.785 l
		= 3.785 41 dm ³
	1 UK bu (bushel)	= 0.036 368 7 m ³ = 36.368 7 dm ³
	1 US bushel	= 0.035 239 1 m ³ = 35.2391 dm ³
	1 in. ³	= 16.3871 cm ³
	1 ft ³	= 0.028 316 8 m ³
	1 yd ³	= 0.764 555 m ³
	1 board foot (timber)	= 0.002 359 74 m ³ = 2.359 74 dm ³
	1 cord (timber)	= 3.624 56 m ³
Moment of inertia	1 lb ft ²	= 0.042 146 1 kg m ²
	1 slug ft ²	= 1.355 82 kg m ²
Mass	1 grain	= 0.064 798 9 g = 64.7989 mg
	1 dram (avoir.)	= 1.771 85 g = 0.001 771 85 kg
	1 drachm (apoth.)	= 3.887 93 g = 0.003 887 93 kg
	1 ounce (troy or apoth.)	= 31.1035 g = 0.031 103 5 kg
	1 oz (avoir.)	= 28.3495 g
	1 lb	= 0.453 592 37 kg
	1 slug	= 14.5939 kg
	1 sh cwt (US hundredweight)	= 45.3592 kg
	1 cwt (UK hundredweight)	= 50.8023 kg
	1 UK ton	= 1016.05 kg
		= 1.016 05 tonne
	1 short ton	= 2000 lb
		= 907.185 kg
		= 0.907 tonne
Mass per unit area	1 lb/acre	= 0.112 085 g/m ² = 1.120 85 × 10 ⁻⁴ kg/m ²
	1 UK cwt/acre	= 0.012 551 5 kg m ⁻²
	1 oz yd ²	= 0.033 905 7 kg m ⁻²
	1 UK ton/acre	= 0.251 071 kg m ⁻²
	1 oz/ft ²	= 0.305 152 kg/m ²

CONVERSION FACTORS (continued)

Quantity	Unit	Conversion factor
Mass per unit area <i>continued</i>	1 lb/ft ²	= 4.882 43 kg/m ²
	1 lb/in. ²	= 703.070 kg/m ²
	1 UK ton/mile ²	= 0.392 298 g/m ² = 3.922 98 × 10 ⁻⁴ kg/m ²
Density	1 lb/ft ³	= 16.0185 kg/m ³
	1 lb/UK gal	= 99.7763 kg/m ³ = 0.099 73 kg/l
	1 lb/US gal	= 119.826 kg/m ³ = 0.1198 kg/l
	1 slug/ft ³	= 515.379 kg/m ³
	1 ton/yd ³	= 1528.94 kg/m ³ = 1.528 94 tonne/m ³
	1 lb/in. ³	= 27.6799 Mg/m ³ = 27 679.9 g/cm ³
Specific volume	1 in. ³ /lb	= 16.1273 cm ³ /kg
	1 ft ³ /lb	= 0.062 428 0 m ³ /kg = 62 428.0 dm ³ /kg
Velocity	1 in./min	= 0.042 333 cm/s
	1 ft/min	= 0.005 08 m/s = 0.3048 m/min
	1 ft/s	= 0.3048 m/s = 1.097 28 km/h
	1 mile/h	= 1.609 34 km/h = 0.447 04 m/s
	1 UK knot	= 1.853 18 km/h = 0.514 773 m/s
	1 international knot	= 1.852 km/h = 0.514 444 m/s
Acceleration	1 ft/s ²	= 0.3048 m/s ²
Mass flow rate	1 lb/h	= 0.125 998 g/s = 1.259 98 × 10 ⁻⁴ kg/s
	1 UK ton/h	= 0.282 335 kg/s
Force or weight	1 dyne	= 10 ⁻⁵ N
	1 pdl (poundal)	= 0.138 255 N
	1 ozf (ounce)	= 0.278 014 N
	1 lbf	= 4.448 22 N
	1 kpf	= 9.806 65 N
	1 tonf	= 9.964 02 kN
Force (weight) per unit area or pressure or stress	1 pdl/ft ²	= 1.488 16 N/m ²
	1 lbf/ft ²	= 47.8803 N/m ²
	1 mm Hg	= 133.322 N/m ²
	1 in. H ₂ O	= 249.089 N/m ²
	1 ft H ₂ O	= 2989.07 N/m ² = 0.029 890 7 bar
	1 in. Hg	= 3386.39 N/m ² = 0.033 863 9 bar
	1 lbf/in. ²	= 6.894 76 kN/m ² = 0.068 947 6 bar
	1 bar	= 10 ⁵ N/m ²
	1 std. atmos.	= 101.325 kN/m ² = 1.013 25 bar
	1 tonf/ft ²	= 107.252 kN/m ²
	1 tonf/in. ²	= 15.444 3 MN/m ² = 1.544 43 hectobar
Specific weight	1 lbf/ft ³	= 157.088 N/m ³
	1 lbf/UK gal	= 978.471 N/m ³
	1 tonf/yd ³	= 13.0124 kN/m ³
	1 lbf/in. ³	= 271.447 kN/m ³
	1 hecto-pascal = 100 pascal	
Energy	1 erg	= 10 ⁻⁷ J
	1 hp h (horsepower hour)	= 2.684 52 MJ
	1 thermie = 10 ⁶ cal ₁₅	= 4.1855 MJ
	1 therm = 100 000 Btu	= 105.506 MJ
Power	1 hp = 550 ft lbf/s	= 0.745 700 kW
	1 metric horsepower (ch. PS)	= 735.499 W
Heat	1 cal ₁₅	= 4.1868 J
	1 Btu	= 1.055 06 kJ

CONVERSION FACTORS (continued)

Quantity	Unit	Conversion factors
Specific heat	1 Btu/lb degF	= 4.1868 kJ/kg degC
	1 Chu/lb degC	
	1 cal/g degC	
Heat flow rate	1 Btu/h	= 0.293 071 W
	1 kcal/h	= 1.163 W
	1 cal/s	= 4.1868 W
Intensity of heat flow rate	1 Btu/ft ² h	= 3.154 59 W/m ²
Electric energy	1 kWh	= 3.6 MJ
Dynamic viscosity	1 lb/ft s	= 14.8816 poise = 1.488 16 kg/m s
Kinematic viscosity	1 ft ² /s	= 929.03 stokes = 0.092 903 m ² /s
Calorific value or specific enthalpy	1 Btu/ft ³	= 0.037 258 9 J/cm ³ = 37.2589 kJ m ³
	1 Btu/lb	= 2.326 kJ/kg
	1 cal/g	= 4.1868 J/g
	1 kcal/m ³	= 4.1868 kJ/m ³
Specific entropy	1 Btu/lb °R	= 4.1868 kJ/kg K
Thermal conductivity	1 cal/cm/cm ² s degC	= 4.1868 W/cm/cm ² degC
	1 Btu/ft ² h degF	= 1.730 73 W/m/m ² degC
Gas constant	1 ft lb/ft ³ °R	= 0.005 380 32 kJ/kg K
Plane angle	1 rad (radian)	= 57.2958°
	1 degree	= 0.017 453 3 rad = 1.1111 grade
	1 minute	= 2.908 88 × 10 ⁻⁴ rad = 0.0185 grade
	1 second	= 4.848 14 × 10 ⁻⁶ rad = 0.0003 grade
Velocity of rotation	1 rev/min	= 0.104 720 rad/s

90001 absolute drought

In British climatology, a drought period of at least fifteen consecutive days during which no measurable daily precipitation has fallen. In the United States similar criteria have been used to define a dry spell (which, in turn, has a different definition in Great Britain).

Ordinarily, these criteria are applied regardless of the season of the year. (AMS)

0002 absolute humidity

(Also called vapor concentration, vapor density) In a system of moist air, the ratio of the mass of water vapor present to the volume occupied by the mixture, that is, the density of the water vapor component.

Compare mixing ratio, specific humidity, relative humidity, dew point (AMS)

0003 absorption

(1) The process in which incident radiant energy is retained by a substance. A further process always results from absorption, that is, the irreversible conversion of the absorbing medium. The absorbing medium itself may emit radiation, but only after an energy conversion has occurred.

A substance which absorbs energy may also be a medium of reflection, refraction, diffraction or scattering= these processes, however, involve no energy retention or transformation and are to be clearly differentiated from absorption.

See attenuation, sound absorption (AMS)

(2) In general, the taking up or assimilation of one substance by another, where the two substances chemically combine.

See sorption, adsorption (AMS)

0004	absorption, specific	551.579.5	556.322.6	556.143
	absorption, spécifique			

Ratio of the quantity of water which can be absorbed by soil which contains retained water only, to the total

amount of water when fully saturated,
or to the total soil volume (IGH)

Rapport entre la quantité d'eau que
peut retenir un sol et la quantité
totale d'eau quand le sol est saturé
(GIH)

0005 accelerated erosion

Erosion increased by human agency to
beyond the normal geologic rate (AHS)

0006 accumulated temperature (or cumulative
 temperature)

In Great Britain, the accumulated
temperature above a given standard. It
is measured by the total number of days
(or hours) since a given date during
which temperature was above the
standard during those days (or hours).
The concept of accumulated temperature
was introduced into plant geography by
A. de Candolle in 1855, his standard
temperature was 6°C (42.8°F), below
which he considered that no vegetative
growth took place. It was introduced
into agricultural meteorology in

Britain in 1878, when accumulated temperatures in excess of 42°F were first published regularly in the Weekly Weather Report. These were calculated from the daily maximum and minimum temperatures according to a formula devised by R. Strachey. In heating calculations a form of accumulated temperature is calculated as the number of degree days below the standard, which is taken as 65°F in the United States and 60°F in Great Britain.(AHS)

0007 acidity of water
 acidité de l'eau

Amount of acids, given as
milliequivalents of a strong base per
1 Litre of water, necessary to titrate
the sample to a certain PH value. (IGH)

Quantité d'acide, exprimée en
milliéquivalents de base forte par
litre d'eau nécessaire pour titrer un
échantillon à une certaine valeur du PH
(GIH)

0008 actinograph

(0177M)

A recording actinometer. See Robitzsch actinograph (AHS).

0009 actinometer

The general name for any instrument used to measure the intensity of radiant energy, particularly that of the sun (See actinometry.)

Actinometers may be classified, according to the quantities which they measure, in the following manner:

(a) pyrheliometer, which measures the intensity of direct solar radiation;
(b) pyranometer, which measures global radiation (the combined intensity of direct solar radiation and diffuse sky radiation); and (c) pyrgeometer, which measures the effective terrestrial radiation.

See also bolometer, dosimeter, photometer, radiometer; compare sunshine recorder (AMS)

0010 actinometry

The science of measurement of radiant energy, particularly that of the sun, in its thermal, chemical (actinic), and

(0177M)

luminous aspects.

Compare radiometry, photometry, see actinometer. (AMS)

0011 advection

The process of transport of an atmospheric property solely by the mass motion (velocity field) of the atmosphere; also the rate of change of the value of the advected property at a given point.

Regarding the general distinction (in meteorology) between advection and convection, the former describes the predominantly horizontal, large-scale motions of the atmosphere while convection describes the predominantly vertical, locally induced motions (AMS).

0012 afforestation
reboisement

634.0.233

Conversion of bare land into forest land by planting of forest trees. (IGH)

Conversion de terrain dénudé en terrain boisé par la plantation d'arbres forestiers. (GIH)

(0177M)

0013 agricultural climatology

In general, climatology as applied to the effect of climate on crops. It includes especially the length of the growing season, the relation of growth rate and crop yields to the various climatic factors and hence the optimum and limiting climates for any given crop, the value of irrigation, and the effect of climatic and weather conditions on the development and spread of crop diseases.

This discipline is primarily concerned with the space occupied by crops, namely the soil and the layer of air up to the tops of the plants, in which conditions are governed largely by the microclimate. (AMS)

0014 agricultural meteorology

In general, meteorology and micrometeorology as applied to the specific problems of agriculture. (AMS)

0014a airborne materials

substances, living or dead, visible or invisible, solid or gaseous, carried from one place to another by air movement. with very few exceptions, of which pollen is one and sulphur in some areas is another, all such forms of air-borne material are liable to have adverse effects on food production, both animal and vegetable. (MAM)

0015	Albedo	551.521.14
	Albedo	

(1) Ratio of reflected to incoming radiation usually given in per cent. (ICSI)

(2) The ratio of the amount of electromagnetic radiation reflected by a body to the amount incident upon it, commonly expressed as a percentage. The albedo is to be distinguished from the reflectivity, which refers to one specific wavelength (monochromatic radiation).

Usage varies somewhat with regard to the exact wavelength interval implied in albedo figures, sometimes just the visible portion of the spectrum is considered, sometimes the totality of

wavelengths in the solar spectrum. Representative approximate values of the albedo for visible wavelengths are: bare ground, 10-20 per cent, green forest, 3-10 per cent, wet sand, 9 per cent, dry sand, 18 per cent, fresh snow, 80-85 per cent. The albedo of clouds varies greatly with the depth and type of cloud, from a negligible value for tenuous stratus up to about 80 per cent for stratus and stratocumulus layers several thousand feet thick. The albedo of the planet Earth has not been determined with finality, and calculations have ranged from 35 to 43 per cent. (AMS)

0016 albedometer

An instrument used for the measurement of the reflecting power (the albedo) of a surface. A pyranometer adapted for the measurement of radiation reflected from the earth's surface is sometimes employed as an albedometer. (AMS)

0016a alfalfa

Medicago sativa, better known as

lucerne. A fodder plant thought to be a native in the Mediterranean region and W. Asia. Long grown by farmers elsewhere and now extensively naturalized on waste ground.

0017	alkalinity alcalinite	556.114	541.132
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Amount of cations balanced by weak acids expressed as millequivalents of neutralized hydrogen ions, in 1 litre of water (IGH)

Quantité de cations équilibrés par des acides faibles, exprimée en milliéquivalents d'ions hydrogène neutralisés, pour 1 litre d'eau (GIH)

0018	alluvium syn. alluvial deposit alluvions	551.312.3
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Clay, silt, sand, gravel, pebble or other detrital material deposited by water. (IGH)

Terre, glaise, limon, sable, gravier, cailloux ou autres débris de matériaux déposés par l'eau. (GIH).

0019	anemometer anémomètre	551.508.54	551.508.53
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Instrument used in the measurement of wind speed or of wind speed and direction. (WMO)

Appareil utilisé pour mesurer la vitesse du vent, ou la vitessed et la direction du vent. (WMO)

0020	antecedent precipitation index indice de précipitation antécédente	551.577	556.12
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Weighted summation of past daily precipitation amounts, used as index of soil moisture. The weight given each day's precipitation is usually assumed to be an exponential or reciprocal function of time, with the most recent precipitation receiving the greatest weight. (IGH)

Somme des précipitations journalières ponderées, utilisée comme indice de l'humidité du sol. On admet généralement que le poids attribue à la précipitation de chaque jour est une

fonction exponentielle ou inverse du temps. La precipitation la plus recente ayant le poids le plus fort.
(GIH)

0020a animal physiology

The study of the manner in which animals carry on their life processes (CDST).

0020b aphid

Any of numerous small sluggish homopterous insects (superfamily Aphidoidea) that suck the juices of plants thereby causing wilting, distorted growth, or gall formation, serve as vectors of certain important virus diseases of plants, and excrete as a by product of their metabolism a sweet liquid very attractive to ants.
(W)

0020c apple

A tree of the genus Malus, the fruit of which is economically important especially in North America, Europe and Australia. The fruit is markedly variable but usually round in shape and red, yellow, or greenish in colour. (W)

0020d apple scab

Disease in apples caused by the pathogen *Venturia inaequalis* occurring first in the spring, when asco-spores which have over-wintered in the orchard top soil are released by the effect of rain. Mills' work (1954) showed that if such spores land on apple leaf, then infection will occur if the leaves are wet for a relatively short period (about 10h) in high spring temperatures, but at lower temperatures near freezing point, as long a wetness period as 48h may be necessary. (MAM)

0020e apricot

A temperate-zone tree (*Prunus armeniaca*) the fruit of which is oval orange-colored resembling both peach and plum in flavour. (W)

0021 arid climate

Generally extremely dry climate.

As defined by Thornthwaite in the 1931 climatic classification: a humidity province within which values of precipitation-effectiveness index are less than 16. On the moisture index scale which he used in 1948, values of -60 to -40 define an arid climate (designed E in both cases).

Köppen and others have applied the name desert climate for similar conditions of extreme aridity (AHS)

0022 aridity
aridité

551.585.5

551.454

- (1) condition in which evaporation always exceeds precipitation (IGH)
- (2) characteristic of a climate relating to insufficiency or inadequacy of precipitation to maintain vegetation. (WMO)
- (3) The degree to which a climate lacks effective, life-promoting moisture; the opposite of humidity, in the climatic sense of the term.

(0177M)

The overall concept of aridity vs. humidity is coming to be known as precipitation effectiveness. Two basic approaches have been made. The first, used by W. Köppen and modified by Bailey, does not openly define aridity, but rather assigns delimiting values of annual precipitation (treated with regard to distribution and temperature) to separate a dry climate from other types. The second approach actually prescribes a measure of aridity or precipitation effectiveness and uses these values as a primary parameter of classification. Of this type are Thornthwaite's precipitation-effectiveness index (1931) and moisture index (1948), E. de Martonne's index of aridity, and W. Gorczynski's aridity coefficient, Lang's moisture factor, and Angström's humidity coefficient. (AMS).

- (1) condition dans laquelle l'évaporation potentielle excède toujours les précipitations. (GIH)
- (2) caractéristique d'un climat où les précipitations sont insuffisantes pour assurer le maintien de la végétation. (WMO)
- (3)

0023 aridity coefficient

A function of precipitation and temperature designed by W. Gorczynski to represent the relative lack of effective moisture (the aridity) of a place. It is given by: (latitude factor) x (temperature range) x (precipitation ratio). The latitude factor is the cosecant of the latitude (taken as 3.0 for 0-4°). The temperature range is the difference (°F) between the means of the hottest and coldest months. The precipitation ratio is the difference between the highest and lowest annual totals (adjusted to a 50-year record) divided by the average.

The value of this coefficient is about 100 in the middle of the Sahara; in the United States it ranges from 70 at Bagdad, California to 2 at Eureka, California. (AMS)

0024 aridity index

(1) As used by C.W. Thornthwaite in his 1948 climatic classification: an index of the degree of water deficiency below water need at any given station; a measure of aridity. It is calculated, independently of the opposing humidity

(0177M)

index, as follows:
aridity index = $100d/n$

where d (the water deficiency) is the sum of the monthly differences between precipitation and potential evapotranspiration for those months when the normal precipitation is less than the normal potential evapotranspiration; and where n is the sum of monthly values of potential evapotranspiration for the deficient months.

Thorntwaite puts the aridity index to two uses: (a) as a component of the moisture index; (b) as a basis for the more detailed classification of moist climates (prehumid, humid, and moist subhumid climates).

(2) See index of aridity. (AMS)

0025 arid zone

(1) same as equatorial dry zone.

(2) see desert, desert climate, arid climate. (AMS)

0025a army worm

Any of a number of larval noctuid moths

that often travel in great multitudes from field to field destroying grass, grain and other crops; especially: the common armyworm (Pseudaletia unipuncta) of the northern U.S. (W)

0026 aspect
exposition

556.514

Direction towards which land slope faces. The direction is measured downslope and normal to the contours of elevation. (IGH)

Direction vers laquelle fait face la pente du terrain, cette orientation est déterminée par la direction de la pente (perpendiculaire aux lignes de niveau), relativement au nord géographique. (GIH)

0026a avocado

A tropical American tree of the genus Persea, the fruit of which is pulpy green or purple somewhat pear shaped, especially of cultivated varieties originating in the West Indies, Guatemala and Mexico. (W)

(0177M)

0026b babesiosis

(1) Piroplamosis. Disease caused by infection by protozoa of the genus Babesia. (CDST)

(2) Also called red water fever, caused by a parasite Babesia divergens which is vectored by the common tick Ixodes vicinus.

Donelly and Mac Kellar (1970) have investigated this disease in detail in South Devon. They compared measurements of tick population in the field with disease incidence and found there was a high correlation between the two provided that they incorporated a 2 1/2 week time lag in the disease figures. This delay is explained by the time needed for activation and host-seeking by the tick and the development of the effect of the parasite on the animal producing clinical symptoms.

They furthermore showed that the disease prevalence was highly correlated with maximum air temperatures occurring 14 days earlier.

0026c banana

Any of several tree like perennial herbs of the genus Musa (especially M. paradisiaca sapientum) that are native to tropical Asia but are cultivated or naturalized throughout the tropics, that have a soft herbaceous stalk, very large simple leaves, flowers enveloped in closed bracts and collected into a large pendent bunch each flower of which produces a single usually seedless fruit, and that usually reproduces only vegetably by means of suckers formed at the base of the plant.

0026d barley

Any cereal grass of the genus Hordeum cultivated since pre-historic times and widely adaptable being grown for forage. (W)

0027	beach (see also shore line)	551.417
	plage (voir aussi côte)	

Belt or zone which extends along the water, occupied by unconsolidated material, moving sand or shore drift. The shore inland from the water line to

(0177M)

the place where there is a marked change in material or physiographic form, or to the line of permanent vegetation (WR)

Zone bordant la mer ou une vaste étendue d'eau, constituée de matériaux non consolidés, sables mouvants ou matières diverses amenées par les vagues. Zone côtière entre le bord même de l'eau et la ligne où commence la végétation permanente (WR)

0027a bean

Erect or climbing leguminous plants especially of the genera Phaseolus, Dolichos and Vigna - see kidney bean, sieva bean, snap bean. (W)

0028 Beaufort scale
échelle de Beaufort

551.501.3

Wind-force scale, originally based on the state of the sea, expressed in numbers from 0 to 12 (WMO)

Echelle pour caractériser la force du vent, basée à l'origine sur l'état de la mer, et s'exprimant en nombres de 0 à 12 (WMO)

0028a beet

Any biennial plant of the genus Beta (especially B. vulgaris) with large thick leaves used especially when young as greens and with a bulbous root. The enlarged root of the beet is cultivated as a garden vegetable, as a source of sugar or for forage. (W)

0029 belt of fluctuation synonyme zone of 556.332.52 : 556.32
fluctuation
zone de fluctuation de la nappe phréatique

That part of the litosphere which, because of the fluctuations of the water table, lies part of the time in the zone of saturation and part of the time in the overlying zone of aeration (IGH)

Partie de la litosphère qui, par suite de la fluctuation de la surface de la nappe phréatique, se trouve tantôt dans la zone de saturation et tantôt dans la zone d'aération, au-dessus (GIH)

0030 black frost

(0177M)

(Also called hard frost) A dry freeze, with respect to its effects upon vegetation, that is, the internal freezing of vegetation unaccompanied by the protective formation of hoarfrost.

A black frost is always a killing frost, and its name derives from the resulting blackened appearance of affected vegetation (AMS)

Note: This frost is always due to persistent action of cold air masses as opposed to white frost which is caused by radiation and of a more temporary nature.

0031	boundary of saturation frontière de saturation	556.324
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Interface between saturated and
unsaturated soil (IGH)

Interface entre la zone saturée et la
zone non saturée d'un sol (GIH)

0032	boundary, semi-pervious syn. boundary, leaky limite semi-perméable	556.322.43
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Boundary between a pervious and a semi-pervious layer (IGH)

Frontière entre une formation perméable et une formation semi-perméable (GIH)

0033	bowen ratio	551.508.72	556.132.8
	saumure		

At a water surface, the ratio of the energy flux upward as sensible heat to the energy flux used in evaporation (IGH)

A la surface d'une nappe d'eau, rapport entre le flux d'énergie qui s'échappe vers le haut sous forme de chaleur sensible et le flux d'énergie consommé par l'évaporation (GIH)

0033a breadfruit tree

A tall tree (*Artocarpus altitidis*) that is probably native to Malaya but now widespread in the tropics both under

(0177M)

cultivation and as an escape, produces bread fruit, has a bark that contains strong fiber used locally to make cloth, and yields a usable timber and a glutinous material employed in caulking and as a glue or birdline. (W)

0033b broccoli

A branching cauliflower sometimes considered a separate variety (Brassica oleracea italica) that produces a head of functional florets at the end of each main branch which is cut for food while the florets are tight green or purplish buds and is usually succeeded by smaller heads on secondary branches - called also sprouting broccoli. (W)

0033c buffalo, water

The water buffalo (Eubalus bufalis) originally from India but now domesticated, developed into several breeds, and used as draft animals in most of the warmer countries of Asia and adjacent islands. It is larger and less docile than the common ox and fond of marshy places and rivers. (W)

0033d cabbage

A leafy garden plant (Brassica oleracea capitata) derived from a wild European plant (B. oleracea) and distinguished by short stem upon which is crowded a mass of leaves usually green but in some varieties red or purplish forming a dense globular head that is used as a vegetable. (W)

0033e cacao

Any of several trees of the genus Theobroma, especially a tree (T. cacao) native to South America and now extensively cultivated (as in the West Indies, Mexico, Central America) that bears on the trunk or the old branches flowers with a pink calyx and yellowish corolla succeeded by fleshy yellow pads six or more inches long and three or four inches in diameter containing numerous seeds - called also the chocolate tree. (W)

0034 calibration syn. rating
tarage

53.089.6

(0177M)

Experimental determination of the relationships between the quantity to be measured and the indication of the instrument, device or process which measures it (IGH)

Détermination expérimentale de la relation entre la quantité à mesurer et l'indication donnée par l'instrument, le dispositif ou le procédé de mesure (GIH)

0034a camel

Either of two large ruminant mammals used as draft and saddle animals in desert regions especially of Africa and Asia and peculiarly adopted to desert life in their ability to live on tough thorny plants, in their capacity to conserve water in the body, and their highly modified feet with broad thick calloused soles and small hoofs situated at the end of the toes:

(1) the Arabian camel (Camelus dromedarius) with a single large lump on the back: dromedary.

(2) the Bactrian camel (C. bactrianus) with two lumps. (W)

0035 Campbell-Stokes recorder

A sunshine recorder of the type in which the time scale is supplied by the motion of the sun. It consists essentially of a spherical lens which burns an image of the sun upon a specially prepared card. The instrument must be oriented carefully so that the time scale on the card agrees with the sun time. The depth and breadth of the trace may be interpreted in terms of the intensity of the sun. This instrument is used at many European weather stations (AMS)

0036	canal canal	626.1	556.53
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Artificiel open channel. (IGH)

Conduit artificiel ou l'écoulement se fait à l'air libre. (GIH)

0037	capacity, field syn. capacity, effective; capacity, waterholding; capacity, field capillary (moisture); capacity, (maximum) field carrying; see also specific retention	556.15	556.322.6
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(0177M)

capacité au champ voir aussi capacité de
rétention

Amount of water held in a soil sample
after the excess of gravitational water
has drained away. (IGH)

Quantité d'eau retenue dans le sol
après que l'eau de gravité se soit
égouttée. (GIH)

0038	capillarity	532.6
	capillarité	

Phenomena which are associated with the
surface tension of liquids,
particularly in capillary tubes and
porous media where gas, liquid and
solid interfaces meet. (IGH)

Phénomène associé à la tension de
surface d'un liquide, particulièrement
dans les tubes capillaires et les
milieux poreux où les interfaces gaz,
liquide et solide sont en contact.
(GIH)

0039	capillary action	556.322.6
	action capillaire	

Action due to capillarity, e.g. holding
water in the soil against gravity.
(IGH)

Action due à la capillarité, par ex. le
maintien de l'eau dans le sol contre la
force de gravité. (GIH)

0040	capillary conductivity conductivité capillaire	556.34
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Coefficient which measures the extent
to which a permeable medium allows flow
of water through its capillary
interstices, under a unit gradient of
capillary potential. (IGH)

Propriété combinée d'un milieu poreux
et du fluide le traversant en un
écoulement non saturé, qui détermine la
relation entre le débit spécifique et
le gradient du potentiel capillaire qui
en est la cause. (GIH)

0041	capillary diffusion (of water) syn. capillary migration diffusion capillaire	556.34
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Movement of water by capillarity in a porous medium. (IGH)

Mouvement de l'eau par capillarité dans un milieu poreux. (GIH)

0042	capillary fringe syn. capillary zone frange capillaire	556.322.6
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Belt of surface water, held above the zone of saturation by capillarity. (IGH)

Zone immédiatement au-dessus de la surface de la nappe phréatique où l'eau est retenue par capillarité au-dessus de cette surface. (GIH)

0043	capillary head, critical syn. air-entry charge capillaire critique	556.322.6
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Lowest capillary pressure head at which air pushes water from the pores. (IGH)

Pression capillaire minimale à partir de laquelle l'air chasse l'eau hors des interstices. (GIH)

0044	capillary hysteresis hystérésis capillaire	556.322.6	556.34
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Phenomenon resulting from the fact that the retention curves in drainage and wetting are different. (IGH)

Différence existant entre les courbes de rétention correspondant respectivement à l'assèchement ou au mouillage d'un sol. (GIH)

0045	capillary interstice syn. capillary pore interstice capillaire	556.322.6
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Interstice small enough for water to be held in it against gravity above a water table. (IGH)

Interstice suffisamment petit pour que l'eau s'y maintienne contre la force de gravité. (GIH)

0046	capillary potential see also soil- moisture tension potentiel capillaire voir aussi force de suction du sol	556.142	532.68
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Work required to move a unit weight of water from a free-water surface to a specified point in the soil at the level of the water surface. (IGH)

Travail nécessaire pour déplacer l'unité de poids ou de masse d'eau depuis la surface d'eau libre jusqu'à un point déterminé dans la colonne de sol au niveau de la surface de l'eau. (GIH)

0047	capillary pressure tension capillaire	556.322.6
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Difference of pressures on both sides of a curved air-water interface. (IGH)

Différence entre les pressions existant de part et d'autre de l'interface incurvée air-eau. (GIH)

0048	capillary rise ascension capillaire	556-14	,532.68
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(1) Rise of a liquid in a capillary tube, immersed in the liquid, measured

from the surface level of the outside liquid. (CID)

(2) Rise of water above the phreatic surface through the action of capillarity. (CID)

(1) Hauteur d'ascension d'un liquide dans un tube capillaire immergé dans ce liquide, mesurée à partir de la surface du liquide à l'extérieur du tube. (CID)

(2) Dans une colonne d'ascension de sol verticale, la hauteur d'ascension de l'eau au-dessus de la nappe phréatique sous l'action de la capillarité. (CID)

0049	capillary suction	532.68
	suction capillaire	

Phenomenon due to capillary forces that causes a liquid below atmospheric pressure to be forced into a porous medium. (IGH)

Phénomène dû aux forces capillaires par lequel un liquide à une pression inférieure à la pression atmosphérique est aspiré dans un milieu poreux. (GIH)

0050	capillary water	556.322.6
	eau capillaire	

(0177M)

Water held in the soil above the phreatic surface by capillarity, soil water above hygroscopic moisture and below the field capacity. (IGH)

Eau retenue par capillarité dans le sol au-dessus de la nappe phréatique. Eau du sol comprise entre l'humidité hygroscopique et la capacité au champ. (GIH)

0050a carrot

A biennial plant (Daucus carota) having a yellow or orange-red tapering root that is used as a vegetable. (W)

0050b cashew

A tropical American tree (Anacardium occidentale) naturalized in all warm countries and important chiefly for its nut but yielding also a gum. (W)

0050c cassava

Any of several plants of the genus Manihot having fleshy root stocks yielding a nutritious starch and cultivated throughout the tropics where it provides a staple food - called also manioc, tapioca plant. (W)

0050d castor-oil plant

A tropical african and Asiatic herb (Ricinus communis) naturalized in all tropical countries and growing as an annual in temperate regions, having large palmate bronze-green leaves, small apetalous flowers, and spring capsules containing beanlike mottled seeds that yield castor oil and are poisonous because of the presence of ricin. (W)

0050e cauliflower

A garden plant (Brassica oleracea capitata) that is closely related to the cabbage and is grown for its edible head of greatly modified and compacted

white or purplish undeveloped flowers -
see broccoli. (W)

0050f celery

A European herbaceous plant (Apium
graveolens), specifically: one of a
cultivated variety (A. graveolens
dulce) the leafstalks of which are
eaten raw or cooked. (W)

0051 channel scour 627.43
affouillement du lit d'un cours d'eau

Erosion of an alluvial stream channel
during period of high flow. (IGH)

Erosion du lit d'un cours d'eau durant
les périodes de hautes eaux. (GIH)

0051a cherry

Any of numerous trees and shrubs of the
genus Prunus that have pale yellow to
deep red or blackish smooth skinned
nearly globular rather small fruits

which are drupes enclosing a smooth seed and that include various improved forms cultivated for their fruits or for their ornamental flowers. See Japanese flowering cherry, sour cherry, sweet cherry. Compare peach, plum. (W)

0051b chicken

(Also called, poultry, domestic fowl). a bird of one of the breeds developed from the jungle fowl (Gallus gallus) including some specialized for meat production and others for egg laying, for fighting, or purely for ornament or show. (W)

0051c citrus

A genus of often thorny trees and shrubs (family Rutaceae) having alternate unifoliolate leaves with a winged petiole, tetramerous floers with many stamens, and large baccate fruit with pulpy endocarp and firm exocarp, including the orange, lemon, lime, and related fruits, and being native to tropical Asia but now widely cultivated for their fruits - compare citronge,

kumquat, mandarin, shaddock, tangelo.
(W)

0052 class-A pan

See evaporation pan

0053 climatic characteristics 551.582
caractéristiques climatiques

Characteristics of a drainage basin as
a rule depending on climate such as
precipitation, degree of afforestation,
etc. (IGH)

Caractéristiques d'un bassin qui
dependent normalement du climat, telles
que précipitations, taux de boisement,
etc. (GIH)

0054 climatic classification

The division of the earth's climates
into a world-wide system of contiguous
regions, each one of which is defined
by relative homogeneity of the climatic

elements

The earliest known classification of climate, devised by the Greeks, simply divided each hemisphere into a mathematical climate of three zones: the "summerless," "intermediate," and "winterless," thus accounting only for the latitudinal differences in solar effect (the Greek klima means "inclination"). More recently these have been labeled the Torid, Temperate and Frigid Zones. Apparently, the first major improvement over this was introduced by Alexander Supan in the nineteenth century. He based his zoning on actual rather than theoretical temperatures, and named on hot belt, two temperate belts, and two cold caps. Supan also divided the world into thirty-four climatic provinces, with no attempt to relate similar climates of different locations.

Another basic and much used approach recognizes other climatic controls as well as the sun. The resulting climates are called polar, temperate, tropical, continental, marine, mountain, and probably other, with variations.

Of the major climatic classifications in use today, those of W. Köppen (1918) and C. W. Thorthwaite (1931) are referred to most often. Köppen's elaborate "geographical system of climates" is based upon annual and

seasonal temperature and precipitation values, his climatic regions are given a letter code designation. The major categories are tropical rainy climate, dry climate, temperate rainy climate, snow forest climate, tundra climate and perpetual frost climate. In 1934 Gorczynski devised a decimal number system similar to the Köppen classification. Thornthwaite's bioclimatological system (1931) utilizes indices of precipitation effectiveness to outline humidity provinces, and thermal efficiency for temperature provinces, and again, a letter code designates regions.

Thornthwaite, in 1948, introduced an approach to a "rational" classification, wherein potential evapotranspiration is used as a measure of thermal efficiency, and is compared to precipitation to form a moisture index and to show amounts and periods of water surplus and deficiency. Definite break-points are revealed which are adaptable as climatic boundaries. Many authors have devised modified classifications to instruct a particular audience. An excellent example is that of C. E. P. Brooks (Climate in Everyday Life, 1951, pp. 17-21) in which climatic regions are defined with respect to "human activity". (AMS)

0055 clogging
colmatage

556.535.6

Deposition of fine particles such as clay or silt at the surface and in the pores of a permeable porous medium, e.g. soil, resulting in the reduction of permeability. (IGH)

Dépôt de très fines particules de terre glaise ou de limon, par ex., à la surface et dans les interstices d'un milieu poreux perméable, ayant pour effet de réduire la perméabilité. (GIH)

0056 cloud seeding see also precipitation, 551. 509.617
artificial
ensemencement des nuages voir aussi pluie
artificielle

Introduction of particles of appropriate material (e.g. solid CO₂, crystals of AgI) into a cloud, with a view to modifying the cloud structure and causing dissipation or precipitation. (WMO)

Introduction dans un nuage de

particules d'une substance appropriée
(par ex. glace carbonique, cristaux
d'iodure d'argent) en vue de modifier
la structure du nuage et provoquer sa
dissipation ou sa précipitation. (WMO)

0057 cloudburst 551.577.37
averse torrentielle

Rainstorm of extraordinary intensity
and relatively short duration. (IGH)

Pluie d'intensité extraordinaire et de
durée assez courte. (GIH)

0057a clove

A moderate-sized very symmetrical
red-flowered tropical evergreen tree
(Eugenia caryophyllata or Syzygium
aromaticum) of the family Myrtaceae
that is probably native to the Moluccas
but is now widely cultivated in the
tropics (as Zanzibar and Madagascar)
for its flower buds which are sources
of cloves.. (W)

0057b clover

1. A herb of the genus Trifolium characterized by trifoliate leaves and flowers in dense heads
2. Any of several plants of the family Leguminosae (as sweet clover, bush clover, prairie clover, or spotted clover. (W)

0057c coconut tree

A tall pinnate - leaved palm (Cocos nucifera) found throughout the tropics but believed to have originated in tropical America and bearing a large edible fruit and leaves that are used in thatching or are split for use in weaving (as hats, baskets, and malting). (W)

0058 coefficient, hygroscopic
coefficient d'hygroscopicité

551.579.5

556.15

Percentage of moisture, on an oven-dry basis that a dry soil holds when in equilibrium with an atmosphere saturated with water vapour, at the

(0177M)

given temperature. (CID)

Quantité d'eau dans un sol en équilibre avec une atmosphère saturée de vapeur d'eau, exprimée en pour cent du poids de ce sol séché au four. (CID)

0059	coefficient of variation	519.214.6
	coefficient de variation	

Statistical parameter describing the change of a stochastic variable in time or space, expressed as the ratio of the standard deviation to the mean [dimensionless]. (CHOW)

Paramètre statistique sans dimension définissant la distribution d'une variable stochastique dans le temps ou dans l'espace, exprimé par le rapport de l'écart-type à la moyenne. (CHOW)

0060	coefficient, pan	551.573	556.132.8
	coefficient de conversion d'un bac évaporatoire		

Ratio of evaporation from a large body of water to that measured in an evaporation pan. (IGH)

Rapport entre l'évaporation sur une
grande étendue d'eau et celle mesurée
sur un bac évaporatoire. (GIH)

0060a coffee

A genus of small trees and shrubs of
the family Rubiaceae native to the
tropical Old World (as Africa) having
white fragrant flowers borne in
clusters at the base of the shining
green leaves, and including several
species (especially C. arabica,
C. liberica, and C. robusta) that are
widely grown in tropical and
subtropical uplands for their
cherrylike fruits
which contain seeds from which coffee
is prepared. (W)

0061 colorado pan
bac colorado

551.508.72

556.132.8

Type of evaporation pan made of an
unpainted galvanized iron sheet which
is about 1 metre square and 45 cm
deep. This pan is sunk into the ground
to within 5 cm of its rim, and the

(0177M)

water is maintained at about ground level. (IGH)

Type de bac d'évaporation en tole galvanisée non peinte, ayant environ 1 mètre carré de superficie et 45 cm de profondeur. Ce bac est enterré, mais son bord supérieur reste à 5 cm au-dessus du sol et l'eau est maintenue à peu près au même niveau que le sol. (GIH)

0061a colorado potato beetle

A black-and-yellow striped beetle (Septinotarsa decemlineata) originally found in the eastern foothills of the Rocky Mountains where it fed on the sandbur (*Solanum rostratum*) but now feeding in both the larval and adult stages on the leaves of the potato, often doing great damage, and spread into most potato-growing regions of the world. (W)

0062 Colorado sunken pan

A type of evaporation pan which is 3 ft square and 18 in deep. This pan is

sunk into the ground to within 2 in of its rim, and the water is maintained at about ground level. It is made of unpaid galvanized iron. The pan coefficient, on an annual basis, is about 0.8 (AMS)

0063	condensation	551.574.1	536.423.4
	condensation		

(1) Transition from the vapour to the liquid state. (IGH)

(2) The physical process by which a vapor becomes a liquid or solid, the opposite of evaporation. In meteorological usage, this term is applied only to the transformation from vapor to liquid; any process in which a solid forms directly from its vapor is termed sublimation, as is the reverse process. (AMS)

(1) Passage de la phase vapeur à la phase liquide. (GIH)

(2)

0064	consumptive use	551.573	,551.579.5	,581.11
	consommation d'eau des cultures			

(0177M)

Quantity of surface and groundwater absorbed by crops and transpired or used directly in the building of plant tissue, together with that evaporated from the cropped area, expressed in units of volume per unit area. Also includes all activities where the use of water results in a loss in the original water supplied, such as industrial or community consumption. (IGH)

Quantité totale d'eau, superficielle et souterraine, utilisée pour la transpiration et la formation du tissu des plantes et celle qui est évaporée du sol cultivé durant un temps quelconque spécifié. Elle est exprimée en unités de volume d'eau par unité de superficie.

Comprend aussi toutes les activités où l'utilisation de l'eau provoque un abaissement des ressources hydriques, comme la consommation industrielle ou la consommation domestique. (GIH)

0065	contour (-line) syn. isophyse	556.332.5	556.334.5	556.04
	isophyse	912		

Line on a map indicating the locus of points at which a certain property is constant (e.g. elevation, salinity). (IGH)

Courbe, sur une carte indiquant le lieu des points où une certaine propriété est constante (par ex. hauteur, salinity). (GIH)

0065a corn (zea mays)

(Also called maize or Indian corn).
A cereal plant of the grass family Gramineae (Poaceae), originating in North, Central and South America.
Corn is used as livestock food, human food and as raw material in industry
(EB)

0065b corn borer

The larva of an old world pyrausted moth (Pyrausta nubilatis) introduced into and now widespread in eastern North America where it is a major pest in the stems and crowns of maize, dahlias, potatoes, and many other plants. (W)

0065c cotton

Any plant of the genus Gossypium characterized by an erect and freely branching habit, alternate lobed leaves, and large creamy white or yellow flowers that soon turn red and subtended by a cup-shaped involucre. It produces a capsular fruit that bursts open when ripe thereby exposing the seeds and attached hairs. (W)

0066 cotton-belt climate

A type of warm climate characterized by dry winters and rainy summers; i.e., a monsoon climate in contrast to a Mediterranean climate. (AMS)

0066a cow

- (1) The mature female of wild or domestic cattle of the genus Bos
- (2) a domestic bovine animal regardless of its sex or age.

0067 crop calendar

A list of the standard crops of a region in the form of a calendar giving the dates of sowing and various stages of their growth in years of normal weather. (AMS)

0067a cucumber

The annual trailing or climbing vine (Cucumis sativas), cultivated from earliest times, that bears a succulent fruit varying in shape from cylindrical to globular and used as garden vegetable. (W)

0068 cumulative temperature

Same as accumulated temperature.

0068a currant

A small seedless raisin grown chiefly in the Levant and used extensively in cookery and confectionery. (W)

(0177M)

0068b cutworm

Any of certain smooth-bodied chiefly nocturnal caterpillars (family Noctundae) that hide by day in soil and debris and feed at night on plant stems near ground level or climb into trees to feed on flower buds and that mature into midsummer into egg-laying moths.

0069 daily mean

(1) The average value of a meteorological element over a period of twenty-four hours. The "true daily mean" is usually taken as the mean of twenty-four hourly values between midnight and midnight, either as continuous values taken from an autographic record or as point readings at hourly intervals. When hourly values are not available, approximations must be made from observations at fixed hours. For temperature a number of formulas have been devised for such approximations. For other elements the mean of the available observations is usually accepted.

(2) The long-period mean value of a climatic element on a given day of the year. A curve of daily means throughout the year shows the annual variation in much greater detail than a curve based on monthly means, but unless it is based on a long period (at least fifty years) it will probably be dominated by accidental irregularities. (AMS)

0069a dandelion

A plant of the genus *Taraxacum* (especially *T. officinale*) abundant as a weed in meadows, lawns, and cultivated grounds throughout Europe, Asia, and North America. (W)

0070	data, historical	551.506.3	556.044
	données historiques		

Hydrological and meteorological data of events which occurred in the past. (IGH)

Données hydrologiques et
météorologiques relatives à des
événements passés. (GIH)

(0177M)

0071 dating, radioactive 521.039.86
 datation par les radioisotopes

Method of age determination based on
the property of radio-active decay of
isotopes. (IGH)

Méthode de datation fondée sur la
propriété de désintégration radioactive
des radioisotopes. (GIH)

0072 debris syn. detritus see also sediment 556.535.6
 sédiment

Any accumulation of loose material
arising from the waste of rocks.
(OD). It may occur in the place where
it is produced, or it may be
transported by streams or ice and
deposited in other localities. (GG)

Accumulation de débris de matériaux
provenant de l'attrition ou de
l'érosion des roches et des sols.
(OD). Ces débris peuvent demeurer sur
place ou être transportés par les cours
d'eau ou les glaciers et déposés loin
de leur lieu de formation. (GG)

0073	deforestation déboisement	634.0.91
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Removal of forest. (IGH)

Abattage des arbres d'une forêt. (GIH)

0074	degradation dégradation	551.311.2	551.311.3
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Desintegration and wearing down of the surface of rocks, cliffs, strata, streambeds etc. by atmospheric and aqueous action. (OD)

Effritement des roches, falaises, escarpements, terrasses, lits de cours d'eau, sous l'action des agents atmosphériques, air et eau. (OD)

0075	degree day degré-jour	551.524
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(1) Algebraic difference, expressed in degrees, between the mean temperature of a given day and a reference

temperature (usually 0°C). For a given period (months, years) algebraic sum of the degree days of the different days on the period. (WMO)

(2) Generally, a measure of the departure of the mean daily temperature from a given standard: one degree for each degree (°C or °F) of departure above (or below) the standard during one day.

Degree days are accumulated over a "season" at any point during which the total can be used as an index of past temperature effect upon some quantity, such as plant growth, fuel consumption, power output, etc. This concept was first used in connection with plant growth, which showed a relationship to cumulative temperature above a standard of 41°F. (AMS)

(1) Différence algébrique exprimée en degrés, entre la température moyenne d'un jour déterminé et une température de référence (habituellement 0°C). Pour une période donnée (mois, années), somme algébrique des "degrés-jour" des différents jours de la période considérée. (WMO)

(2)

0076 dendrohydrology
dendrohydrologie

556

634.0.56

(0177M)

Use of tree rings to study hydrological phenomena. (IGH)

Utilisation des anneaux de croissance des arbres pour étudier les phénomènes hydrologiques. (GIH)

0077	density of soil, actual densité réelle du sol	631.431.1
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Mass of an oven-dry soil sample per unit volume (soil particles only) (g.cm^{-3}). (IGH)

Masse d'un échantillon sec de sol par unité de volume (exprimé en (g cm^{-3})). A l'exclusion de l'air emprisonné. (GIH)

0078	density of soil, bulk densité globale du sol	631.431.1
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Mass of an oven-dry soil sample per unit gross volume (including pore space). (IGH)

Masse d'un échantillon de sol sec par
unité de volume total. (volume des
vides compris). (GIH)

0079 denudation 551.3.053
dénudation

(1) Erosion by rain, frost, wind or
water of the solid matter of the
earth. Implies often the wiping off of
the soil down to the bedrock.

(2) Stripping (AU). Removal, by
natural or artificial means, of all
vegetation and organic matter. (IGH)

(1) Erosion par la pluie, le gel, le
vent, l'eau, de la matière solide de la
terre mettant à nu des couches
antérieurement recouvertes.
Sous-entend souvent que le sol est
dégarni jusqu'à la roche de fond.

(2) Enlèvement de toute la végétation
et la matière organique d'un sol, par
des moyens naturels ou artificiels.
(GIH)

0080 depth-area curve syn. rainfall 551.577 551.501.5
intensity area curve
courbe intensité - surface d'une
précipitation

Curve showing the relationship between average rainfall depth and the area over which it occurs for a given storm duration. (IGH)

Courbe représentant l'intensité moyenne d'une précipitation sur une zone en fonction de la surface de cette zone, pour une durée de précipitation donnée. (GIH)

0081	depth-area-duration analysis analyse hauteur superficie-durée	551.577.3	556.16.047
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Analysis of areal distribution of precipitation from a storm, usually made graphically using depth-area curves for various storm durations. (IGH)

Analyse de la précipitation surfacique correspondant à une averse, faite en général graphiquement sous la forme d'une famille de courbes indiquant la hauteur maximale des précipitations pour diverses superficies et diverses durées des averses. (GIH)

0082	depth-duration curve syn. rainfall intensity-duration curve	551.464.09	663.63
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(0177M)

courbe intensité - durée d'une précipitation

Curve showing the relationship between average rainfall depth in a given area and the storm duration. (IGH)

Courbe représentant l'intensité moyenne d'une précipitation sur une surface donnée en fonction de sa durée. (GIH)

0083 desalination syn. desalting, see also 551.464.09 .663.63
 sea-water conversion
 dessalement voir aussi dessalination

Any established process by which the salt content of brackish or saline water is reduced sufficiently to make this water fit for human, animal, industrial, or other specified uses. (IGH)

Tout procédé par lequel la concentration en sels des eaux saumâtres ou salines est suffisamment réduite pour que ces eaux deviennent propres aux usages divers auxquels elles ont été prévues. (GIH)

0084 desert

A region where precipitation is insufficient to support any except xerophilous vegetation; a region of extreme aridity

See desert climate, arctic desert, trade-wind desert, equatorial dry zone. (AMS)

0085 desert climate

(Also called arid climate). A climate type which is characterized by insufficient moisture to support appreciable plant life; that is, a climate of extreme aridity.

W. Köppen, in his climatic classification, defines a desert climate (designated BW) by assigning maximum values of annual precipitation as follows:

for precipitation mainly in cold season,

$$p = 0.22 (t-32),$$

for evenly distributed precipitation,

$$p = 0.22 (t-19.4),$$

for precipitation mainly in hot season

$$p = 0.22 (t-6.8),$$

where p is the mean annual

precipitation in inches, and t is the mean annual temperature in °F. This method was modified by Bailey to:

$$p = 0.22 (t - R/4)$$

where p and t are the same as above, and R is the percentage of total precipitation falling in the cooler half of the year.

See also arid climate. (AMS)

0085a desert locust

A destructive migratory locust (Schistocerca gregaria) of southwestern Asia and parts of northern Africa. (W)

0086 desert wind

A wind blowing off the desert. It is very dry and usually dusty, very hot in summer but cold in winter, with a large diurnal range of temperature. Well known examples are the Harmattan, Khamsin and Simoon. (AMS)

0087 dessication

(1) In general, the process of drying up.

(2) In climatology, the permanent decrease or disappearance of water from a region. This may be due to (a) a decrease of rainfall, (b) a failure to maintain irrigation, or (c) deforestation or overcropping. (AMS)

0088 dew point

(or dew-point temperature AMS) The temperature to which a given parcel of air must be cooled at constant pressure and constant water-vapor content in order for saturation to occur. When this temperature is below 0°C , it is sometimes called the frost point. The dew point may alternatively be defined as: the temperature at which the saturation vapor pressure of the parcel is equal to the actual vapor pressure of the contained water vapor.

Isobaric heating or cooling of an air parcel does not alter the value of that parcel's dew point, as long as no vapor is added or removed. Therefore, the dew point is a conservative property of air with respect to such processes. However, the dew point is non-conservative with respect to

(0177M)

vertical adiabatic motions of air in the atmosphere. The dew point of ascending moist air decreases at a rate only about one-fifth as great as the dry-adiabatic lapse rate. (See dew-point formula.

The dew point of the atmosphere can be determine directly by any of several types of dew-point hygrometers, but it is more commonly determined with the aid of a psychrometric calculator or tables after the direct reading of a psychrometer. (AMS)

0089	detention, initial syn. surface	551.577	556.12
	retention		
	rétention initiale		

That part of precipitation which does not appear either as infiltration or as surface runoff during the period of precipitation or immediately thereafter. It includes interception by vegetal cover, depression storage, and evaporation during precipitation, but does not include surface retention. (IGH)

Partie des précipitations qui n'apparaît ni comme infiltration ni comme écoulement de surface pendant la durée des précipitations ou

immédiatement après et qui comprend l'interception par la couverture végétale, l'emmagasinement dans les dépressions du sol et l'évaporation pendant la chute des précipitations mais pas la rétention superficielle. (GIH)

0090	detention storage	556.15
	emmagasinement temporaire	

That part of the precipitation which is temporarily stored en route to the stream system during or shortly after rainfall. Detention storage includes surface and channel detention but does not include depression storage. (IGH)

Portion de la précipitation qui, au cours de l'averse ou immédiatement après, est emmagasinée temporairement pendant son trajet vers le système fluvial. L'emmagasinement temporaire comprend la rétention superficielle et l'emmagasinement dans les cours d'eau, mais pas l'emmagasinement dans les dépressions du sol. (GIH)

0091	dew	551.574.41
	rosée	

Deposit of water drops on objects at or near the ground, produced by the condensation of water vapour from the surrounding clear air. (WMO)

Dépôt de fines gouttelettes produites par la condensation de la vapeur d'eau atmosphérique par temps clair, sur la végétation ou sur des objets à la surface du sol. (WMO)

0092	dewatering see also drainage exhaure voir aussi drainage	556.38	:628.1
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Removing of water from an enclosure or from the soil. (IGH)

Epuisement des eaux d'infiltration du sol. (GIH)

0093	dewatering rate taux de drainage	551.579.5	556.142
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Amount of drainage water removed per unit horizontal area per unit time.
(IGH)

Quantité d'eau de drainage extraite par
unité de surface horizontale et par
unité de temps. (GIH)

0094 dewpoint syn. dewpoint temperature, 551.571
thermodynamic
point de rosée

Temperature to which moist air must be
cooled at constant pressure and
constant mixing ratio in order to reach
saturation. (WMO)

Température jusqu'à laquelle doit être
refroidi un air humide ayant une
pression constante et un rapport de
mélange constant, pour atteindre le
point de saturation. (WMO)

0095 diffuse radiation

Radiant energy propagating in many
different directions through a given
small volume of space: to be
contrasted with parallel radiation.
The ideal form of diffuse radiation is
isotropic radiation.

Example of diffuse radiation are
provided by infrared radiation in the

earth's atmosphere and by light within a deep cloud whose water drops have scattered and reflected the initially parallel radiation into innumerable beams advancing in many directions. The theory of emission and absorption of diffuse radiation is much more complex than that of parallel radiation, and has led to the introduction of such computational aids as radiation charts.

Careful distinction should be made between this concept and that of a perfectly diffuse radiator. (AMS)

0096	diffusion syn. diffusion, molecular	556.34
	diffusion syn. diffusion, moleculaire	

Process of spreading of a solute as a result of the thermal movement of the molecules of this solute. (IGH)

Processus de diffusion d'un solvant résultant du mouvement thermal des molécules de ce solvant. (GIH)

0097	diffusion coefficient (in porous media)	556.342	556.332.4
	coefficient de diffusion		

Amount of solute that passes across a unit cross section in a porous medium in unit time under the influence of a unit concentration gradient. (IGH)

Quantité de solvant passant à travers l'unité de section droite d'un milieu poreux et pendant l'unité de temps sous l'influence d'un gradient de concentration unité. (GIH)

0098	discharge syn. rate of flow, flux see also yield débit voir aussi rendement d'un bassin versant	556.342	556.535.4
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Volume of fluid flowing through a surface (e.g. a cross section of a stream) per unit time. (IGH)

Taux d'écoulement d'un fluide ou d'une énergie à travers une surface. (GIH)

0099	dissolved solids, total (TDS) total des sels dissous	556.114
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Total weight of dissolved mineral constituents in water per unit volume or weight of water in the sample. (IGH)

Quantité totale de constituants
minéraux dissous dans l'eau par unité
de volume ou de poids de l'échantillon
d'eau. (GIH)

0100	ditch rigole	626.82
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Artificial small-size open channel
constructed through earth or rock, for
the purpose of conveying water. (IGH)

Canal ouvert artificiel de petite
dimension creusé pour amener de l'eau,
en général de l'eau d'irrigation. (GIH)

0101	divide syn. drainage divide, water parting, watershed divide ligne de partage des eaux	556.51
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Summit or boundary line separating
adjacent drainage basins. (CID)

Ligne de faite ou frontière séparant
des bassins contigus. (CID)

0101a	downy mildew	
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A fungus of the family Peronosporaceae that is parasitic on higher plants (as grapes, potatoes and various cucurbits) and that produces whitish masses of sporangiophores or conidiophores on the undersurface of the leaves of the host.
(W)

0102 drainage area

(Also called catchment area) The size of the area comprising a watershed or river basin. (AMS)

0103 drizzle
bruine

551.578.1

Fairly uniform precipitation composed exclusively of fine drops of water (less than 0.5 mm diameter) very close to one another. (WMO)

Pluie uniforme composée exclusivement de gouttelettes de moins de 0,5 mm de diamètre, et très rapprochées les unes des autres. (WMO)

(0177M)

0104	drought (Sometimes spelled drouth) sécheresse	551.577.38	556.167.6
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(1) Prolonged absence, marked deficiency, or poor distribution of precipitation. (WMO)

(2) A period of abnormally dry weather sufficiently prolonged for the lack of precipitation to cause a serious hydrological imbalance. (IGH)

(3) A period of abnormally dry weather sufficiently prolonged for the lack of water to cause a serious hydrologic imbalance (i.e. crop damage, water-supply shortage, etc.) in the affected area. Drought severity depends upon the degree of moisture deficiency, the duration, and (to a lesser extent) the size of the affected area. In general, the term should be reserved for periods of moisture deficiency that are relatively extensive in both space and time

Compare dry spell, see absolute drought. (AMS)

(1) Période prolongée de précipitations faibles ou nulles. (WMO)

(2) Période anormalement sèche, suffisamment prolongée pour que l'absence de précipitations provoque un

grave déséquilibre hydrologique. (GIH)
(3)

0105 drought index
indice de sécheresse

551.577.38

Computed value which is related to some of the cumulative effects of a prolonged and abnormal moisture deficiency. An index of hydrological drought corresponding to levels below the mean in streams, lakes, reservoirs, and the like. However, an index of the agricultural drought must relate to the cumulative effects of either an absolute or an abnormal transpiration deficit. (IGH)

Valeur calculée qui est liée à quelques-uns des effets cumulatifs d'un déficit d'humidité prolongé et anormal. Du point de vue hydrologique, l'indice de sécheresse se rapporte aux niveaux médians ou inférieurs à la moyenne de l'eau dans les cours d'eau, les lacs, les réservoirs, etc. Toutefois, du point de vue agricole, l'indice de la rigueur de la sécheresse doit être fondé sur les effets cumulatifs soit d'un déficit de transpiration absolu, soit d'un déficit de transpiration anormal. (GIH)

0106 drouth

Same as drought

0107 dry climate

(1) In W. Köppen's climatic classification, the major category (B climates) which includes steppe climate and desert climate. These climates, unlike the others in his work are defined strictly by the amount of annual precipitation as a function of seasonal distribution and of annual temperature (see formulas under steppe climate). In contrast are the rainy climate. (AMS)

(2) In C. W. Thornthwaite's 1948 climatic classification, any climate type in which the seasonal water surplus does not counteract seasonal water defficiency, thus it has a moisture index of less than zero. These include the dry subhumid, semi-arid, and arid climates. In contrast are the moist climates.

The dry climates are subdivided further according to values of humidity

index into the following: little or no water surplus; moderate winter water surplus; moderate summer water surplus; large winter water surplus; large summer water surplus. (AMS)

0108 dry season

In certain types of climate, an annually recurring period of one or more months during which precipitation is at a minimum for that region; the opposite of rainy season.

The term usually is limited to regions in which the temperature is relatively high throughout the year, and where the seasonal variation of precipitation is a major feature of the climate. Within the tropics the dry season generally falls in the winter season of the corresponding hemisphere; in subtropical regions it may come either in summer (Mediterranean climate) or winter (monsoon climate). Near the equator there may be two dry seasons during the year which are distinguished by separate names, such as the long verano and short veranillo of tropical America.

It should be noted that a dry season is not a drought . Only the failure of

the normal rainy season would constitute a drought in this type of climate. (AMS)

0109 dry spell

Loosely, a period of abnormally dry weather. The term should be reserved for a less extensive, and therefore less severe, condition than a drought.

In the United States the term has been applied to a period lasting not less than two weeks, during which no measurable precipitation is recorded. In British climatology it is defined as a period of at least fifteen consecutive days, on none of which 0.04 inches (1 mm) or more was recorded. (AMS)

0109a duck

Any of various swimming birds of the family Anatidae which have the neck and legs short, the body more or less depressed, the bill often broad and flat, the tarse scutellate in front, and the sexes almost always different

(0177M)

from each other in plumage and which are distinguished by these characteristics and by their comparatively small size from swans and geese. In a number of countries certain species of ducks are domesticated and especially raised for food (duck meat and eggs). (W)

0110 ecoclimatology

Same as ecological climatology. (AMS)

0111 ecological climatology

(Also called ecoclimatology). A branch of bioclimatology, which studies the relations between organisms and their climatic environment. It includes the physiological adaptation of plants and animals to their climate, and the geographical distribution of plants and animals in relation to climate. (AMS)

0112 ecology

(0177M)

The study of the mutual relations between organisms and their environment. (AMS)

0113 ecotone

In ecology, a zone of transition from one major plant community to another. For example, the forest-tundra ecotone in high northern latitudes is a zone of patchy and often stunted tree-growth, intermixed with areas of tundra. (AMS)

0114 effective growing season

See growing season. (AMS)

0115 effective precipitable water

The part of the precipitable water which, in theory, can actually fall as precipitation. Its value usually is taken as the difference between the inflow and outflow of precipitable water as computed by applying the equation of continuity to an assumed storm model. (AMS)

0116 effective precipitation

(1) That part of precipitation that reaches stream channels as runoff.

(2) In irrigation that portion of the precipitation which remain in the soil and is available for consumptive use.
(AMS)

0116a eggplant

A hairy upright somewhat woody perennial herb (Solanum melongena) that is probably native to southeastern Asia but is widely cultivated in many horticultural varieties usually as an annual for its edible purple, white or occasionally yellow or striped fruits which are commonly used as a vegetable.
(W)

0117	energy balance syn. energy budget see	551.573	556.131.12
	also heat balance		
	bilan énergétique		

Equation for estimating the evaporation

(0177M)

from open water bodies, or the evapo-transpiration of land surfaces, in which the increase in energy stored in the body of water is the residual between the incoming inergies (solar radiation, long-wave atmospheric radiation, net advected energy into the body of water) and the outgoing energies (reflected solar and long-wave radiations emitted by the body of water, energy of evaporation, energy conducted from the body of water as sensible heat, energy advected by the evaporated water). (GHM)

Equation pour l'évaluation de l'évaporation des surfaces d'eaux libres ou de l'évapo-transpirations à la surface du sol, dans laquelle l'accroissement d'énergie stockée dans la masse d'eau est la différence entre les énergies entrantes (radiation solaire, radiation atmosphérique à ondes longues, énergie nette d'advection dans la masse d'eau) et les énergies sortantes (radiations solaires et radiations à ondes longues réfléchies par la masse d'eau, énergie d'évaporation, énergie de conduction de chaleur, énergie d'advection par l'eau évaporée.) (GHM)

0118	entrainment	556.535.6
	entrainement	

Carrying away of the material produced
by erosive action from bed and banks.
(IGH)

Transport vers l'aval des matériaux
provenant de l'érosion du lit et des
berges. (GIH)

0119 Eppley pyr heliometer

A pyr heliometer of the thermoelectric
type. Radiation is allowed to fall on
two concentric silver rings, the outer
covered with magnesium oxide and the
inner covered with lamp black. A
system of thermocouples (thermopile) is
used to measure the temperature
difference between the rings.
Attachments are provided so that
measurements of direct and diffuse
solar radiation may be obtained.

This instrument has been adopted by
the U. S. Weather Bureau for station
use. (AMS)

0120 equipotential line (or surface) 532.5
ligne (ou surface) équipotentielle

(0177M)

Line (or surface) along which the potential is constant. (IGH)

Ligne (ou surface) le long de laquelle le potentiel est constant. (GIH)

0121	erosion érosion	551.3.053	551.311.2	551.311.3
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Wearing away of the soil by running water, glaciers, winds and waves. (IGH)

Usure du sol et transport des particules arrachées par l'eau courante, les glaciers, le vent et les vagues. (GIH)

0122	eutrophication eutrophication	556.551.4
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Process by which waters become more eutrophic (richer in dissolved nutrients required for the growth of aquatic plants such as algae) either as a natural phase in the maturation of a body of water or artificially (as by fertilization and pollution). (IGH)

Phénomène par lequel une masse d'eau s'eutrophise (c'est-à-dire s'enrichit en matières nutritives dissoutes nécessaires à la croissance des plantes aquatiques ou des algues), soit dans une phase naturelle de maturation de la masse d'eau, soit artificiellement (par exemple par fertilisation ou par pollution). (GIH)

0123 evaporation

(1) (Also called vaporization). The physical process by which a liquid or solid is transformed to the gaseous state, the opposite of condensation. In meteorology evaporation usually is restricted in use to the change of water from liquid to gas, while sublimation is used for the change from solid to gas as well as from gas to solid.

According to the kinetic theory of gases, evaporation occurs when liquid molecules escape into the vapor phase as a result of the chance acquisition of above-average, outward-directed, translation velocities at a time when they happen to lie within about one mean free path below the effective liquid surface. It is conventionally

(0177M)

stated that evaporation into a gas ceases when the gas reaches saturation. In reality, net evaporation does cease, but only because the numbers of molecules escaping from and returning to the liquid are equal, that is, evaporation is counteracted by condensation.

Energy is lost by an evaporating liquid, and, when no heat is added externally the liquid always cools. The heat thus removed is termed the latent heat of vaporization.

(See also evapotranspiration)

(2) In general, the amount of water evaporated. As used quantitatively, "evaporation" may refer to (a) an estimated actual amount of evaporation from a given land or water surface, (b) the amount measured by use of an atmometer, or (c) the evaporative power. (AMS)

0124	evaporation, actual syn. evaporation effective	551.573	556.131
	evaporation réelle syn. evaporation effective		

Quantity of water evaporated from an open water surface or from the ground.
(IGH)

Quantité d'eau évaporée à partir d'une
surface d'eau libre ou du sol. (GIH)

0125	evaporation of water évaporation de l'eau	551.573	556.13
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(1) Emission of water vapour by a free
surface at a temperature below the
boiling point. (WMO)

(2) Amount of water evaporated. (IGH)

(1) Emission de vapeur par une surface
d'eau libre à une température
inférieure au point d'ébullition. (WMO)

(2) Quantité d'eau évaporée. (GIH)

0126	evaporation opportunity
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(Rare, also called relative
evaporation) The ratio of the actual
amount of water evaporated into the
atmosphere to the evaporative power.
(AMS)

0127	evaporation pan see also evaporimeter bac évaporatoire voir aussi évaporimètre	551.508.72	556.132.078
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(0177M)

Evaporimeter composed of a fairly deep tank or pan with a rather large surface in which the lowering of the water level under the action of evaporation can be measured. (WMO)

(1) US class A: pan of cylindrical design 25.4 cm deep and 120.7 cm in diameter, constructed of monel metal, bottom supported on a frame of timbers 1.5 cm above the ground.

(2) USSR GGI-300: cylindrical design, surface area 3000 cm², depth 60 cm, with a cone-shaped bottom set in ground with the rim 7.5 cm above the ground.

(3) USSR 20 m² tank: tank of surface area 20 m², cylindrical, flat bottom, 2 m deep and the rim 7.5 cm above the ground. (IGH)

A type of atmometer, it is a pan used in the measurement of the evaporation of water into the atmosphere. The U. S. Weather Bureau evaporation pan (class-A pan) is a cylindrical container fabricated of galvanized iron or monel metal with a depth of ten inches and a diameter of forty-eight inches. The pan is accurately leveled at a site which is nearly flat, well soded, and free from obstructions. The pan is filled with water to a depth of eight inches, and periodic measurements are made of the changes of the water level with the aid of a hook gage set

in the still well. When the water level drops to seven inches, the pan is refilled. Its average pan coefficient is about 0.7.

See also BPI pan, Colorado sunken pan, floating pan, screened pan. (AMS)

Evaporimètre composé d'un réservoir ou bac relativement profond et de surface plutôt large dans lequel il est possible de mesurer l'abaissement du niveau de l'eau sous l'effet de l'évaporation. (WMO)

(1) Bac US classe A: Bac cylindrique métallique de 25,4 cm de profondeur et 120,7 cm de diamètre reposant sur un cadre de bois à 1,5 cm au-dessus du sol.

(2) Bac URSS type GGI-3000: bac cylindrique de surface 3000 cm², de profondeur 60 cm au fond en forme de cône et enfoncé dans le sol de façon que le bord supérieur du bac soit à 7,5 cm au-dessus du sol.

(3) Bac URSS de 20 m²: bac cylindrique de surface 20 m² de profondeur 2 m, à fond plat et dont le bord supérieur est à 7,5 cm au-dessus du sol. (GIH)

0128	evaporation potential syn. evaporative capacity pouvoir évaporant	551.573	556.13
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Quantity of water vapour which could be emitted by a surface of pure water, per unit surface area and unit time, in the existing conditions. (WMO)

Quantité de vapeur pouvant être émise par une surface unité d'eau pure, et par unité de temps, dans les conditions atmosphériques existantes. (WMO)

0129 evaporation power

Same as evaporative power. (AMS)

0130	evaporation rate taux d'évaporation	551.573	556.131
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Quantity of water which is evaporated from a given water surface per unit of time. (IGH)

Quantité d'eau évaporée d'une surface d'eau libre par unité de temps. (GIH)

0131	evaporation, relative syn. evaporation opportunity evaporation relative	551.573	556.13
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(0177M)

Ratio of the actual rate of evaporation from land surfaces in contact with the atmosphere, to the evaporation capacity under existing atmospheric conditions. (IGH)

Rapport entre l'évaporation à partir d'une surface de sol ou d'eau et le pouvoir évaporant dans les conditions atmosphériques existantes. (GIH)

0132 evaporative capacity

Same as evaporative power. (AMS)

0133 evaporative power

(Or evaporative capacity, also called evaporation power, evaporation capacity, potential evaporation, evaporativity, evaporation.) A measure of the degree to which the weather or climate of a region is favorable to the process of evaporation. It is usually considered to be the rate of evaporation, under existing atmospheric

conditions, from a surface of water which is chemically pure and has the temperature of the lowest layer of the atmosphere.

An atmometer aims at measuring the evaporative power, but even in evaporation pans, which include a free surface, small errors are introduced by the boundaries of the pan and by differences between the temperature of the water surface and the overlying air. The evapoorative power can be calculated from the excess of incoming over outgoing radiation, the surplus being available for evaporation.

See Bowen ratio, evaporation opportunity. (AMS)

0134 evaporativity

Same as evaporative power. (AMS)

0135 evaporimeter syn. atmometer; see also 551.508.72 556.131.112
 evaporation pan
 évaporimètre vois aussi bac évaporatoire

(1) Instrument for measuring the amount of water evaporated into the atmosphere during a given time

(0177M)

interval. (WMO)

(2) Same as atmometer. (AMS)

Instrument pour la mesure de la
quantité d'eau s'évaporant dans
l'atmosphère durant un intervalle de
temps donné. (WMO)

0136	evapotranspiration	551.573	556.135
	évapo-transpiration		

(1) Amount of water transferred from
the soil to the atmosphere by
evaporation and plant transpiration.
(WMO)

(2) The combined process by which
water is transferred from the earth's
surface to the atmosphere, evaporation
of liquid or solid water plus
transpiration from plants.

(3) Also called flyoff, water loss,
total evaporation.) The total amount
of water transferred from the earth to
the atmosphere. This is the most
general term for the result of this
composite process, duty of water and
consumptive use have specific
applications.

(4) Same as potential
evapotranspiration. (AMS)

Quantité d'eau émise du sol vers

l'atmosphère par évaporation et
transpiration des plantes. (WMO)

0137	evapotranspiration, actual syn. evapotranspiration, effective évapo-transpiration réelle syn. évapo-transpiration effective	551.573	556.135
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Sum of the quantities of water vapour
evaporated from the soil and the plants
when the ground is at its actual
moisture-content. (WMO)

Quantité totale d'eau évaporée à partir
du sol et des plantes pour la teneur en
eau réelle que contient le sol. (WMO)

0138	evapotranspiration, potential évapo-transpiration potentielle	551.573	556.135
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Maximum quantity of water capable of
being evaporated in a given climate,
from a continuous stretch of vegetation
covering the whole ground and well
supplied with water.

It thus includes evaporation from the
soil and transpiration from the
vegetation of a specified region in a
given time interval, expressed as
depth. (WMO)

Quantité maximale d'eau pouvant, sous un climat donné, s'évaporer d'un couvert végétal continu bien alimenté en eau. Elle comprend donc l'évaporation par le sol et la transpiration par les plantes exprimées en hauteur d'eau pendant une période de temps donnée. (WMO)

0139	evapotranspirometer see also lysimeter	551.508.72	556.135.078
	évapo-transpiromètre voir aussi lysimètre		

(1) Instrument used for measuring evapotranspiration. (IGH)

(2) An instrument which measures the rate of evapotranspiration. It consists of a vegetation soil tank so designed that all water added to the tank and all water left after evapotranspiration can be measured. (AMS)

(1) Appareil pour mesurer l'évapo-transpiration. (GIH)

(2)

0139a facial ecsema

(0177M)

A disease of sheep caused by a fungus on the grass they eat. This disease was first of importance in New Zealand, but has recently been reported as occurring in South Africa. (MANI)

0140	fallout	551.510.721	551.510.42
	retombées		

Material, especially when radioactive, deposited from the atmosphere. (IGH)

Particules de matériaux,
particulièrement de matériaux
radioactifs, se déposant de
l'atmosphère sur le sol. (GIH)

0141 fall wind

A strong, cold, downslope wind. A fall wind differs from a foehn in that the air is initially cold enough so that it remains relatively cold despite adiabatic warming upon descent. It is a larger-scale phenomenon than the gravity wind (as usually defined), in that a fall wind prerequisites an accumulation of cold air at high elevations.

Fall winds are especially well developed as strong easterly winds on the coast of Norway, and for some distance inland, here they give a narrow strip of fine weather along the shore. They are also well developed on the northern coast of the Aegean Sea. At the southeastern tip of the rocky Hagion Oros Peninsula in Greece, Mt. Athos rises to 6670 ft and descends steeply to the sea; northerly winds are disturbed by this great mass and descend as the cold northeasterly Athos fall wind, often of gale force, extending several miles out to sea. On the coast of Peru the name is given to sudden heavy gusts which often come down from the high land after the sea breeze sets in. At Rio de Janeiro descending squalls from northwest are termed terre altos. In the Antarctic fall winds off the inland ice form violent blizzards.

Good examples of fall winds are the bora, mistral, papagayo, and vardar.
(AMS)

0142 farmer's year

In Great Britain, the 12-month period starting with the Sunday nearest 1 March.

(0177M)

See also grower's year. (AMS)

0142a fascioliasis

(1) Infection of man and other animals with the liver fluke *fasciola hepatica*. (CDST)

(2) Fascioliasis, or liver fluke, has been recognized as a serious danger to sheep and cattle for at least 200 years. Traditional knowledge, never to be ignored or underestimated in any scientific investigation because the facts are likely to be near the truth, even if the reasoning is faulty, has always associated heavy stock losses with wet summers. (MAM)

0142b fig tree

A tree of the genus Ficus, usually, any of the cultivated or escaped trees derived from a tree (F. carica) native to Southwestern Asia but extensively grown in several varieties in warm regions of the New and Old worlds for the edible figs that are their fruit. (W)

0143 filtration see also percolation 628.33
 filtration voir aussi percolation

Process of passing a liquid through a filtering medium for the removal of suspended or colloidal matter. (IGH)

Action de faire passer un liquide à travers un milieu filtrant pour arrêter les matières suspendues ou les substances colloïdales. (GIH)

0143a fire blight

A destructive highly infectious disease of apples, pears and related fruits that is caused by a bacterium (Erivinea amylovora) and that produces a scorched or blackened appearance of the leaves and twigs, cankers on the trunk, or discoloration of flowers and fruit.

0143b flax

A plant of the genus Linum, esp.: a slender erect annual (L. usitalissimum)

(0177M)

with linear leaves and blue flowers that is widely cultivated for (1) its long silky bast fibers which when freed from the stem by retting and mechanical processes are used in textile manufacture and are the source of linen and (2) its seeds which yield a valuable oil and a meal used especially for cattle feed. (W)

0144	flow meter	556.084
	débitmètre	

Instrument for measuring the rate of
flow in a conduit or open channel.
(IGH)

Instrument pour la mesure de
l'écoulement dans une conduite ou un
canal ouvert. (GIH)

0145	flow, overland	556.164
	ruissellement de surface	

Flow of water over the ground before it enters a definite channel. (IGH)

Ecoulement de l'eau d'averse sur le sol avant qu'il ne soit canalisé dans un lit défini. (GIH)

0146	flow, saturated	556.34
	écoulement à travers sol saturé	

Water movement which takes place throughout a soil-pore space that contains little, if any, air. (IGH)

Lorsque le sol est saturé, l'eau se déplace à travers les interstices du sol qui ne contiennent plus ou pratiquement plus d'air. (GIH)

0147	flow, sheet écoulement en nappe	556.34
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Flow in a relatively thin sheet, of nearly uniform thickness, over the soil surface. (IGH)

Ecoulement en nappe relativement mince et d'épaisseur sensiblement uniforme, à la surface du sol. (GIH)

0148	flow, system	551.577.52
	ruissellement par les plantes	

That part of rain intercepted by the larger vegetation which runs down the stems directly to the ground. (IGH)

Partie de la précipitation interceptée par la végétation, et qui ruisselle directement vers le sol par les tiges des plantes et les troncs d'arbres. (GIH)

0149 foehn

(Or föhn.) A warm, dry wind on the lee side of a mountain range, the warmth and dryness of the air being due to adiabatic compression upon descending the mountain slopes.

The foehn is characteristic of nearly all mountain areas. It is associated with cyclonic motions, being produced only when the circulation is sufficiently strong and deep to force air completely across a major mountain range in a short period of time. The exact local nature of foehn winds, however, varies widely and depends upon the local topography, the strength of the basic flow across the mountain, the amount of moisture lost through precipitation on the windward side, conditions prior to the onset of the foehn, etc.

(0177M)

The name originated in the Alps where it is best developed, especially as the south foehn on the northern slopes, and where south-north valleys open into plains or large east-west valleys, as at Innsbruck. In other mountain regions the foehn has a variety of local names: chinook of the Rocky Mountains; zonda of the Argentine (for a westerly foehn); puelche in the Andes (for an easterly foehn); ljuka in Carinthia (northwestern Yugoslavia); halny wiatr in Poland; austru in Romania; favogn in Switzerland. A northeasterly foehn descending the Massif Central of France and extending over the Garonne plain is locally called aspre. A dry wind from northwest descending the coastal hills in Majorca is named the sky sweeper. In New Zealand a foehn blowing from the New Zealand Alps onto the Canterbury plains is the Canterbury northwester.

See foehn phase, high foehn, north foehn, south foehn. (AMS)

0150 foehn air

The air associated with foehn winds, very warm and dry. (AMS)

0150a foot and mouth disease

(0177M)

An acute febrile contagious disease of cloven-footed animals, due to infection by a virus, characterized by a vesicular eruption on the mucous membrane and skin, especially in the mouth and in the clefts of the feet. (also called aphthous fever). (CDST)

0151	forecast prévision	551.509	566.06
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Definite statements or statistical estimates of the occurrence of a future event. (CID)

Annonce précise ou estimation statistique de l'apparition d'un événement futur. (CIF)

0151a fowl plague

An acute contagious virus disease of chickens and other domestic and wild birds; the main symptoms are high temperature, oedema of the head, nasal discharge and rapid death. (CDST)

0152 freshwater barrier 556.388
 barrière d'eau douce

Ridge of fresh groundwater kept at a
sufficient head to avoid intrusion of
salt or brackish water. (IGH)

Front d'eau douce souterraine ayant une
charge hydraulique suffisante pour
empêcher l'intrusion d'eau salée ou
saumâtre. (GIH)

0153 front, wetting syn. front, advancing 556.14
 front d'humidification

Air-water interface in the process of
wetting. (IGH)

Interface air-eau au cours d'une
humidification. (GIH)

0154 frost 551.524.37
 givre syn. gel voir aussi gelée blanche

(1) Syn. dew, white, frost, white; see
also hoar frost, rime.

Frozen dew or vapour. (OD)

(2) Syn. freezing

Lowering of air temperature to a value equal to or less than the freezing point of water (0°C at ordinary pressure). (WMO)

(3) Same as hoarfrost. (AMS)

(4) The condition which exists when the temperature of the earth's surface and earth-bound objects falls below freezing, 0°C or 32°F.

Depending upon the actual values of ambient-air temperature, dew point, and the temperature attained by surface objects, frost may occur in a variety of forms. These include: a general freeze, hoarfrost (or white frost), and dry freeze (or black frost). If a frost period is sufficiently severe to end the growing season (or delay its beginning), it is commonly referred to as a killing frost.

See frost day, ground frost.

(5) See frozen ground. (AMS)

(1) Condensation de vapeur d'eau en paillettes glacées. (OD)

(2) Abaissement de la température de l'air à une valeur égale ou inférieure à celle du point de congélation de l'eau (0°C à la pression atmosphérique normale). (WMO)

(3)

(4)

(5)

0155 frost hazard

The risk of damage by frost. It may be expressed as the probability or frequency of killing frost on different dates during the growing season, or as the distribution of dates of the last killing frost of spring or the first in autumn. (AMS)

0156 frostless zone

(Also called thermal belt, thermal zone, green belt, verdant zone.) That warmest part of a slope above a valley floor lying between the layer of cold air which forms over the valley floor on calm clear nights, and the cold hill tops or plateaus. The air flowing down the slopes is warmed by mixing with the air above ground level and to some extent also by adiabatic compression.

The frostless zone is not a fixed belt but varies in level from night to night according to the initial temperature, the length of the night, and the clearness of the sky. Its lower limit is sometimes clearly marked

(1591M)

by the upper limit of frost damage to crops, following the hillsides at a small angle to the horizontal. (AMS)

See thermal belt. (AMS)

0157 frozen ground

Soil within which the moisture has predominantly changed to ice, the unfrozen portion being in the vapor phase.

Ice within the soil bonds (adfreezes) adjacent soil particles and renders frozen ground very hard. "Permanently" frozen ground is called permafrost. "Dry" frozen ground is relatively loose and crumbly because of the lack of bonding ice.

Frozen ground is sometimes inadvisedly called frost or ground frost. (AMS)

0157a garlic

1. Any of several plants of the genus Allium, especially a European bulbous herb (A. Sativum) now widely naturalized elsewhere. The bulb of the garlic plant has a strong and

Instrument to measure depth of water.
(IGH)

Instrument, appareil ou autre dispositif servant à mesurer une hauteur d'eau. (GIH)

0160	geothermal gradient	550.361.4
	gradient géothermique	

Increase of temperature of the earth per unit of depth (approximately 3.3°C per 100 meter). (IGH)

Augmentation de température à l'intérieur du sol par unité verticale de longueur. (approximativement 3,3°C par 100 mètres). (GIH)

0160a ginger

A tropical perennial herb (*Zingiber officinale*) that is probably a native to the Pacific islands but is widely cultivated for its rhizome which constitutes most of the ginger of commerce. (W)

0161 global radiation

The total of direct solar radiation and diffuse sky radiation received by a unit horizontal surface.

Global radiation is measured by pyranometers. (AMS)

0161a goat

Any of various alert agile Old World hollow-horned ruminant mammals (genus Capra) closely related to the sheep and like them often domesticated but of lighter build and with backwardly arching horns that often form a closely twisted spiral, a short tail, and comparatively straight hair, the male usually having a distinct beard. (W)

0161b grape

Any numerous woody plants that constitute the genus Vitis, usually climb by means of tendrils, produce clustered fruits that are grapes, are nearly cosmopolitan in cultivation, and include many cultivated hybrids and horticultural varieties derived from New and Old world species (as V. vinifera, V. rotundifolia, and V. labrusca). (W)

0161c goose berry

Any of several shrubs of the genus Ribes bearing gooseberries. (W)

0162 grass minimum

The minimum temperature shown by a minimum thermometer exposed in an open situation with its bulb on the level of the tops of the grass blades of short turf.

At British stations, any night on

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which the grass temperature falls to 30.4°F or below is recorded as a night of ground frost. (AMS)

0163 grass temperature

The temperature registered by a thermometer with its bulb at the level of the tops of the blades of grass in short turf. (AMS)

0164 gravity flow 556.322.4
écoulement par gravité

Flow of water in which the effect of gravity is predominant. (IGH)

Ecoulement où l'effet de la gravité est prépondérant. (GIH)

0165 green belt

Same as frostless zone. (AMS)

0166 greenhouse effect

The heating effect exerted by the atmosphere upon the earth by virtue of the fact that the atmosphere (mainly, its water vapor) absorbs and reemits infrared radiation. In detail: the shorter wavelengths of insolation are transmitted rather freely through the atmosphere to be absorbed at the earth's surface. The earth then reemits this as long-wave (infrared) terrestrial radiation, a portion of which is absorbed by the atmosphere and again emitted (see atmospheric radiation). Some of this is emitted downward back to the earth's surface (counterradiation).

The mean surface temperature for the entire world, 14°C , is almost 40°C higher than the mean temperature required for radiative equilibrium of a black body at the earth's mean distance from the sun. It is essential, in understanding the concept of the greenhouse effect, to note that the important additional warming is due to the counter-radiation from the atmosphere. The glass panes of a greenhouse function in this manner exactly analogously to the atmosphere in maintaining high greenhouse temperatures, hence the name. (AMS)

0167 ground frost

(1) In British usage, a freezing condition injurious to vegetation, which is considered to have occurred when a minimum thermometer exposed to the sky at a point just above a grass surface records a temperature (grass temperature) of 30.4°F or below.

See frost.

(2) See frozen ground. (AMS)

0168 groundwater, attached see also water, 556.322
adhesive
eau de rétention voir aussi eau
pelliculaire

(1) Portion of groundwater adhering to the pore walls.

It is assumed to be equal in amount to the residual water after drainage.
(CID)

(2) (Sometimes called phreatic water). Subsurface water which occupies the zone of saturation; thus, only the water below the water table, as distinguished from interflow and soil moisture. (AMS)

- (1) Partie de l'eau souterraine qui adhère aux parois. Elle est estimée égale à la quantité d'eau résiduelle après égouttement. (CID)
(2)

0169 groundwater level 556.332.5
niveau de la nappe

Elevation, at a certain location and time, of the phreatic or piezometric surface of an aquifer. (IGH)

Cote, en un certain point et à un certain moment du niveau de la nappe phréatique ou de la surface piezométrique d'un aquifère. (GIH)

0170 growing season

Generally, the period of the year during which the temperature of cultivated vegetation (i.e., the temperature of the vegetal microclimate) remains sufficiently high to allow plant growth.

This is an important concept in agricultural climatology, but it suffers greatly from vagueness and

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complexity. Currently, the most common measure of this period, "the average length of growing season", is defined as the number of days between the average dates of the last killing frost (see frost) in spring and the first killing frost of autumn. The lack of a positive, practical definition for (and means of determining) a "killing" frost seriously limits the scientific usefulness of this measure. To provide some economic significance, the effective growing season is defined as the length of growing season which prevails in 80 per cent or 90 per cent of the years. Another measure, the frost-free season, is defined as the interval between the last and first occurrences of 32°F temperatures in spring and fall. This may be observed exactly, but its relationship to the local microclimate is variable and non-specific, and it does not consider differences in types of vegetation. Still a fourth measure, the vegetative period or vegetation season, attempts to allow for the greater microclimatic temperature range and for the general growth retardation by cold temperatures, and is defined as the summer period confined between occurrences of 42°F (or 41°F or 43°F) temperatures. At best, any of the above is an "index" of growing season length, rather than a direct measure of it.

Basically, the "growing season" (and "killing frost") should be defined biologically rather than meteorologically, and should consider the detailed microclimate, plant resistance to frost, growth rate vs. temperature, and probably other factors. (AMS)

0171	guttation	551.573	581.113
	sudation		

Process by which plants expel liquid water from leaves in excess of transpiration. (IGH)

Processus par lequel les plantes expulsent des feuilles l'eau en excès de la transpiration. (GIH)

0172	hail	551.578.7
	grêle	

(1) Precipitation of small balls or pieces of ice (hailstones) with a diameter ranging from 5 to 50 mm, sometimes more, falling either separately or agglomerated into irregular lumps. (WMO)

(2) Precipitation in the form of balls

or irregular lumps of ice, always produced by convective clouds, nearly always cumulonimbus. An individual unit of hail is called a hailstone. By convention, hail has a diameter of 5 mm or more, while smaller particles of similar origin, formerly called small hail, may be classed as either ice pellets or snow pellets.

Thunderstorms which are characterized by strong updrafts, large liquid water contents, large clouds-drop sizes, and great vertical height are favorable to hail formation. (For more complete discussion of hail formation, see hailstone).

The destructive effects of hail storms upon plant and animal life, buildings and property, and aircraft in flight render them a prime object of weather modifications studies.

In aviation weather observations, hail is encoded A. (AMS)

(1) Précipitation de granules grossièrement sphérique, formées de couches plus ou moins concentriques de glace (grelons) d'un diamètre de 5 à 50 mm et quelquefois davantage. (WMO)

(2)

0173 hair hygrometer

A hygrometer that measures relative humidity by means of the variation in length of a strand of human hair. The length variation of a properly treated hair is approximately logarithmic between relative humidity limits of 20 to 100 per cent. The lag time of the response of the hair increases with decreasing temperatures and becomes virtually infinite at temperatures below -40°C . (AMS)

0174	hardpan	556.332.4
	croûte	

Dense hard layer at the surface in the subsoil, which obstruct penetration of roots and water. (IGH)

Couche dense et dure à la surface du sol ou dans le sous-sol qui empêche la pénétration des racines et de l'eau.
(GIH)

0175 harmattan

(Also spelled harmatan, harmetan, hermitan.) A dry, dust-bearing wind

(1591M)

from the northeast or east which blows in West Africa especially from late November until mid-March. It originates in the Sahara as a desert wind and extends southward to about 5°N in January and 18°N in July.

It is associated with the high-pressure area which lies over the northwest Sahara in winter and the adjoining part of the Atlantic in other seasons. In summer the cooler onshore southwest monsoon intercuts it, but the harmattan continues to blow at a height of 3000 to 6000 ft and sometimes deposits dust on ship at sea. This conflict of winds causes the so-called West African tornadoes. (AMS)

0176	heat balance syn. heat budget, see also energy balance bilan thermique	556.535.4	556.555.4
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Balance of the gains and losses of heat for a given system (e.g. body of water) for a specified period. (WMO)

Bilan des gains et des pertes de chaleur dans un system donné (par ex. une masse d'eau) en un lieu donné et pendant une période spécifiée. (WMO)

0177	heat-capacity method méthode de la capacité calorifique	551.579.5	551.501
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(1591M)

Method for determining soil moisture by measuring the heat capacity of soil, which varies approximately linearly with moisture content as long as the dry density of the soil remains constant. (IGH)

Méthode de détermination de l'humidité du sol par la mesure de sa capacité calorifique qui, approximativement, varie linéairement avec la teneur en eau pour autant que la densité du sol sec demeure constante. (GIH)

0178 heliograph

An instrument which records the duration of sunshine and gives a qualitative measure of the amount of sunshine by the action of the sun's rays upon blueprint paper; a type of sunshine recorder. (AMS)

0178a hemp

(1591M)

A tall widely cultivated Asiatic herb (Cannabis sativa) with tough bast fiber that is used for making cloth, floor covering and cardage.

0179 hoarfrost, see also frost (1) 551.574.42
 gelée blanche voir aussi givre (1)

Deposit of ice having a crystalline appearance, generally assuming the form of scales, needles, feathers or fans, produced in a manner similar to dew, but at a temperature below 0°C. (WMO)

Dépôt sur une surface refroidie par rayonnement, de cristaux de glaces ayant la forme d'écailles, d'aiguilles, d'éventails, produits de façon semblable à la rosée mais à température inférieure à 0°C. (WMO)

0179a hog

A domestic swine. The latter is any of various animals that constitute the family Suidae and comprise stout-bodied short-legged omnivorous mammals with a thick skin usually covered with coarse bristles, a rather long mobile snout, small tail and hoofed digits. (W)

(1591M)

0180	homothermy	556.555.4
	homothermie	

Situation in which the temperature of a water body does not vary with depth.
(IGH)

Etat d'une masse d'eau dans laquelle la température ne varie pas avec la profondeur. (GIH)

0180a hop

A twining eurasian vine (Humulus lupulus) with 3-lobed or 5-lobed leaves and small greenish dioecious flowers that is widely cultivated in America, occurs often as an escape. The ripened and dried pistillate cones of hop are used chiefly to impart a bitter flavor to malt liquors and also is medicine as a tonic. (W)

0181	horizon, perched syn. aquifer, perched	556.336
	nappe suspendue ou nappe perchée	

(1591M)

Groundwater unit, generally of moderate dimensions, supported by an impermeable stratum which is located between a phreatic surface and the ground surface. (IGH)

Etendue d'eau souterraine, généralement de dimensions modestes, reposant sur une couche imperméable qui se trouve entre la surface d'une nappe souterraine et la surface du sol. (GIH)

0182 horizontal advection

See advection (AMS)

0182a horse

A large solid-hoofed herbivorous mammal (Equus caballus) domesticated by man since a prehistoric period and used as a beast of burden, a draft animal, or for riding and distinguished from the other existing members of the genus Equus and family Equidae by the long hair of the mane and tail, the usual presence of a callousity on the inside of the hind leg below the back, and other less constant characters (as the

large size, larger hooves, more arched neck, small head, short ears). (W)

0183	humidity, absolute	551.571
	humidité absolue	

Mass of water contained in a unit
volume of moist air. (REB)

Masse d'eau contenue dans l'unité de volume d'air humide. (REB)

0184	humidity, air syn. humidity, atmospheric see also moisture, air humidité atmosphérique voir aussi humidité de l'air	551.571	551.579.5
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Water vapour content of the air. (WMO)

Teneur de l'air en vapeur d'eau. (WMO)

0185 humidity index

As used by C. W. Thornthwaite in his 1948 climatic classification; an index of the degree of water surplus over

water need at any given station. It is calculated, independently of the opposing aridity index as follows:

humidity index = $100s/n$,

where s (the water surplus) is the sum of the monthly differences between precipitation and potential evapotranspiration for those months when the normal precipitation exceeds the latter, and where n (the water need) is the sum of monthly potential evapotranspiration for those months of surplus.

The humidity index has two uses in Thronthwait's classification: (a) as a component of the moisture index; (b) as a basis for detailed classification of dry climates. (AMS)

0186	humidity, relative	551.571
	humidité relative	

At a given pressure and temperature, the percentage ratio of the mole fraction of the water vapour to the mole fraction that the air would have if it were saturated with respect to water at the same pressure and temperature. (WMO)

Pour une température et une pression données, rapport en pour cent entre la

vapeur d'eau contenue dans l'air et la vapeur que le même air pourrait contenir s'il était saturé à la même température et la même pression. (WMO)

0187 humidity, specific syn. moisture content (2) 551.571
humidité spécifique

For moist air, ratio of the mass m_v of water vapour to the mass m_a+m_v of moist air in which the water vapour is contained. (IGH)

Pour l'air humide, rapport entre la masse m_v de vapeur et la masse m_a+m_v de l'air humide qui contient cette masse de vapeur. (GIH)

0188 hygrometer 551.508.71
hygromètre

Instrument for measuring the relative amount of moisture in the atmosphere, and for determining the dewpoint. (IGH)

Instrument mesurant l'humidité relative de l'atmosphère, et permettant de déterminer le point de rosée. (GIH)

(1591M)

0189	hygroscopic moisture syn. water, absorbed, hygroscopic water eau hygroscopique	551.579.5	556.15
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(1) Moisture held in the soil in the zone of aeration in equilibrium with atmospheric water vapours. (CID)

(2) Water vapour, absorbed by soil particles, originally contained in the atmosphere. (WMO)

(1) Eau retenue dans la zone d'aération du sol en équilibre avec la vapeur d'eau dans l'atmosphère. (CID)

(2) Vapeur d'eau initialement contenue dans l'atmosphère et absorbée par les particules du sol. (WMO)

0190	hygrothermograph
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A recording instrument combining, on one record, the variation of atmospheric temperature and humidity content as a function of time. The most common hygrothermograph is a hair hygograph combined with a thermograph. (AMS)

0191	ice, grains of see also ice pellets granules de glace voir aussi grelon	551.578.41
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(1591M)

Former name for ice pellets consisting of frozen raindrops or largely melted and re-frozen snowflakes. (WMO)

Première désignation des paillettes de glace, faites de gouttes d'eau gelées ou de flocons de neige en partie fondus et regelés. (WMO)

0192 illuminance

The total luminous flux received on a unit area of a given real or imaginary surface, expressed in such units as the foot-candle, lux or phot. Illuminance is analogous to irradiance, but is to be distinguished from the latter in that illuminance refers only to light and contains the luminous efficiency weighting factor necessitated by the non-linear wavelength-response of the human eye..

The only difference between this term and illumination is that the latter always refers to light incident upon a material surface. On the other hand, luminous flux density seldom if ever is used to denote light incident upon a

(1591M)

material surface. These three terms are conceptually identical; illuminance is the least restrictive, and therefore, possibly, the most useful.

A distinction should be drawn, as well, between illuminance and luminance. The latter is a measure of the light coming from a surface; thus, for a surface which is not self-luminous, luminance is entirely dependent upon the illuminance upon that surface and its reflection properties.

Compare luminous intensity. (AMS)

0193 index of aridity

(1) A measure of the precipitation effectiveness or aridity of a region proposed by De Martonne. It is given by the following relationship:

$$\text{index of aridity} = \frac{P}{T + 10},$$

where P is the annual precipitation in cm and T the annual mean temperature in °C.

(2) see aridity index. (AMS)

0194 infiltration
infiltration

556.14

551.579.5

(1591M)

(1) Flow of water from the soil surface into the soil. (WMO, CID)

(2) Flow from a porous medium into a channel, drain, reservoir or conduit. (CID)

(1) Ecoulement ou mouvement de l'eau qui pénètre dans le sol, en traversant sa surface. (WMO, CID)

(2) Ecoulement d'eau d'un milieu poreux dans un canal, un tuyau, un drain, une retenue ou un conduit.

(3) Eau qui s'est infiltrée. (CID)

0195	infiltration capacity capacité d'infiltration	556.14	551.579.5
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Maximum rate at which water can be absorbed by a given soil per unit surface under given conditions. (IGH)

Taux maximal auquel un sol donné, dans des conditions données, peut absorber de l'eau par unité de surface. (GIH)

0196	infiltration coefficient coefficient d'infiltration	556.14
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(1591M)

Ratio of infiltration to rainfall.
(IGH)

Rapport entre l'infiltration et les
précipitations. (GIH)

0197	infiltration index indice d'infiltration	551.577.37	551.579.1
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Average rate of infiltration derived
from a time intensity graph of rainfall
in such a manner that the volume of
rainfall in excess of this rate will
equal the volume of storm runoff.
(CHOW)

Taux moyen d'infiltration déduit d'un
graphique intensité-durée de la préci-
pitation de façon telle que le volume
de pluie excédant ce taux soit égal au
volume d'eau écoulée. (CHOW)

0198	infiltration rate taux d'infiltration	556.14	552.579.5
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Rate at which infiltration takes
place. (IGH)

(1591M)

Taux auquel l'eau traverse la surface
d'un sol. (GIH)

0199 infiltration routing 556.14
détermination de l'infiltration

Procedure of computing the downward
movement of water through the un-
saturated bed by taking into account
stepwise movement of the wet front and
the changes of water storage in each
soil horizon. (IGH)

Méthode d'évaluation du mouvement
descendant de l'eau à travers la couche
non saturée, où sont pris en compte
l'avance progressive du front humide et
les variations de stockage de l'eau
dans chaque horizon du sol. (GIH)

0200 insolation 551.521.1
insolation

(1) Amount of direct solar radiation
incident per unit horizontal area (WMO)
(contracted from incoming solar
radiation.)

(2) In general, solar radiation
received at the earth's surface.

(1591M)

See terrestrial radiation,
extra-terrestrial radiation, direct
solar radiation, global radiation,
effective terrestrial radiation,
diffuse radiation, atmospheric
radiation.

(3) The rate at which direct solar
radiation is incident upon a unit
horizontal surface at any point on or
above the surface of the earth.

Compare solar constant. (AMS)

(1) Quantité de radiation solaire
incidente reçue directement sur l'unité
de surface horizontale. (GIH)

0201 instrument shelter

(Or thermometer shelter, also called
thermoscreen, thermometer screen.) A
box-like structure designed to protect
certain meteorological instruments from
exposure to direct sunshine, precipi-
tation, and condensation, while at the
same time providing adequate venti-
lation. Instrument shelters are
painted white, have louvred sides
usually a double roof, and are mounted
on a stand several feet above the
ground with the door side facing
poleward.

Instrument shelters are meant to

house thermometric instruments, such as psychrometers, maximum and minimum thermometers, hygrothermographs, etc.

See airways shelter, cotton-region shelter, Stevenson screen. (AMS)

0202 intensity-duration curve 551.577.3
 courbe "intensité-durée"

Curve showing the climatological probability of various short-period precipitation rates for various duration of precipitation at a given location. Often a family of curves is shown, each depicting a specific occurrence frequency or return period in years. (IGH)

Courbe indiquant la probabilité climatologique de diverses intensités de précipitations de courte durée pour diverses durées de précipitations en un lieu donné. Il s'agit souvent d'une famille de courbes, dont chacune représente une certaine fréquence d'occurrence ou période de recurrence exprimée en années. (GIH)

0203 interception 551.577.52
 interception

(1) Process by which precipitation is caught and held by vegetation or structures, then lost by evaporation without reaching the ground. (CID)

(2) Quantity of interception

(3) Syn. canopy interception

That part of the precipitation which is intercepted by vegetation only. (CID)

(1) Processus par lequel les précipitations sont captées et retenues par les feuilles et les branches d'arbres ou autres végétaux et sont perdues par évaporation sans avoir atteint la surface du sol. (CID)

(2) Quantité d'eau interceptée.

(3) Partie de la précipitation interceptée par la végétation. (CID)

0204	interception loss, gross perte brute par interception	551.577.52
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Rainfall evaporated from canopy and litter. (IGH)

Précipitations perdues par évaporation à partir de la couverture végétale et de la litière. (GIH)

0205	intertropical convergence zone
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(1591M)

(1) (Also called equatorial convergence zone.) The axis or a portion thereof, of the broad trade-wind current of the tropics. This axis is the dividing line between the southeast trades and the northeast trades (of the Southern and Northern Hemispheres, respectively).

At one time it was held that this was a convergence line along its entire extent. It is now recognized that actual convergence occurs only along portions of this line.

For further discussion, see equatorial trough. See also intertropical front, doldrums.

(2) Same as meteorological equator.
(AMS)

0206 intertropical front

(Or equatorial front, also called tropical front.) A front presumed to exist within the equatorial trough separating the air of the Northern and Southern Hemispheres.

It has been generally agreed that this front, if one exists, cannot be

(1591M)

explained in the same terms as the fronts of higher latitudes. However, the extent to which frontal theory is to be modified and the nature of the modifications are as yet very controversial questions.

See also intertropical convergence zone, doldrums. (AMS)

0207	irrigation irrigation	631.67	626.81
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Artificial application of water to lands for agricultural purposes. (IGH)

Technique qui consiste à amener de l'eau sur une zone de terrain pour des besoins agricoles. (GIH)

0208	irrigation requirement see also water requirement besoins en eau d'irrigation	551.579.5	:631.67
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Quantity of water, exclusive of precipitation, that is required for optimal crop production. (IGH)

Quantité d'eau, non compris les précipitations, qui est nécessaire pour

la production optimale de récoltes.
(GIH)

0209	isogram see also isopleth isogramme voir aussi isoplethe	551.582.3	556.04	912
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On a diagram or a chart, the line of
equal value of a hydrological or
meteorological element. (WMO)

Sur une carte, ligne d'égale valeur
d'un élément hydrologique,
météorologique ou autre. (WMO)

0210	isotherm isotherme	551.526.8	551.524.2	
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Curve passing through points of equal
temperature. (IGH)

Lieu des points d'une même valeur de la
temperature. (GIH)

0211	isotropy isotropie	556.332.4		
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Condition of a medium having the same
properties in all directions. (IGH)

Caractéristique des corps dont les

propriétés physiques restent identiques
dans toutes les directions. (GIH)

0212 katabatic wind

(1) Any wind blowing down an incline;
the opposite of anabatic wind. If the
wind is warm, it is called a foehn; if
cold, it may be a fall wind (such as
the bora), or a gravity wind (such as a
mountain wind).

(2) Same as gravity wind. (AMS)

0213 lake breeze

A wind similar in origin to the sea
breeze but generally weaker, blowing
from the surface of a large lake onto
the shores during the afternoon; it is
caused by the difference in surface
temperature of land and water as in the
land and sea breeze system. In
addition to area, the depth of the lake
is an important factor; a shallow lake
warms up rapidly and is less effective
as the source of a lake breeze in
summer than a deep lake.

Lake breezes are well developed
around the Great Lakes of North

America, where they temper the summer heat. (AMS)

0214 lake effect

Generally, the effect of any lake in modifying the weather about its shore and for some distance downwind. In the United States, this term is applied specifically to the region about the Great Lakes. (AMS)

0215 lake, eutrophic 556.551.4
lac eutrophique

Lake characterized by a great amount of nutrients and biogenic matters and highly developed phytoplankton in summer. (IGH)

Lac caractérisé par une grande quantité de substances nutritives et de matériaux d'origine biologique, ainsi que par la présence de phytoplancton en abondance pendant l'été. (GIH)

0216 lake, oligotrophic 556.551.4
lac oligotrophique

(1591M)

Lake deficient in plant nutrients and usually having abundant dissolved oxygen without marked stratification. (IGH)

Lac présentant un déficit de substances nutritives pour les plantes et contenant généralement une grande quantité d'oxygène dissous sans stratification marquée. (GIH)

0217 langley

A unit of energy per unit area commonly employed in radiation theory, equal to one gram-calorie per square centimeter.

The langley is almost always used, in conjunction with some time unit, to express a flux density, but the time unit has been purposely separated in order that it may be chosen in a manner convenient to each particular problem. The unit has been named in honor of the American scientist, Samuel P. Langley, 1834-1906, who made many contributions to the knowledge of solar radiation.

0217a lavender

(1591M)

A Mediterranean mint (*Lavandula officinalis*) that is widely cultivated for its narrow aromatic leaves and spikes of lilac-purple flowers which are dried and used in sachets. (W)

0218	leaching	631.6
	lessivage	

Removal of salts from upper soil by relatively salt-free water. (IGH)

Evacuation des sels de la couche supérieure du sol par de l'eau relativement peu chargée en sels. (GIH)

0218a lemon

The stout thorny tree (Atrus limon) that bears an acid fruit that is botanically a syncarpous polycarpellary many-seeded pale yellow berry of oblong form usually with a nipple at the apex and a yellow rind that contains the fragrant lemon oil and is often candied or preserved.

(1591M)

0218b lettuce

A plant of the genus *Lactuca*, specifically: a common garden vegetable (*L. sativa*) the succulent leaves of which are used especially in salads. Head lettuce, leaf lettuce. (W)

0218c lima bean

Any of various bush or tall growing beans that are derived from a perennial tropical american species (*Phaseolus limensis*) and that are widely cultivated for their large edible usually pale green or whitish seeds. (W)

0218d lima-bean pod borer

The larva of a small European pyralidid moth (*Etiella zinckenella*) introduced into North America that bores into the green pods of many legumes including lima beans. (W)

(1591M)

0218e lime

A spiny tropical tree (citrus aurantifolia) with elliptic oblong narrowly winged leaves that bears small globose fruit which is greenish yellow when ripe and has a very acid pulp that yields a juice used as a flavouring agent and as a source of ascorbic acid.
(W)

0219 lithosphere

The outer, solid portion of the earth; the crust of the earth; usually used in contexts wherein the lithosphere is said to make contact with the atmosphere and the hydrosphere.

See also biosphere, geosphere. (AMS)

0220 litter
litière

631.417

Uppermost layer of the organic debris, composed of freshly fallen or slightly decomposed organic materials. (IGH)

(1591M)

Couche supérieure des débris
organiques, composée de matières
tombées récemment ou légèrement
décomposées. (GIH)

- 0221 litter interception loss 551.577.52
perte par interception dans la litière

Rainfall retained on the litter layer
and evaporated without adding to
moisture in the underlying soil. (IGH)

Quantité de pluie dans la litière et
éaporée sans augmenter l'humidité du
sol sous-jacent. (GIH)

- 0222 lysimeter see also evapotranspirometer 556.131.114
lysimètre voir aussi evapo-transpiromètre

Vessel or container placed below the
ground surface to intercept and collect
water moving downward through the
soil. It is a multi-purpose instrument
for the study of several phases of the
hydrological cycle, e.g. infiltration,
runoff, evapotranspiration, soluble
constituents removed in the drainage.
(WMO, CHOW)

Dispositif enterré pour mesurer la
percolation de l'eau à travers le sol,

et pouvant être utilisé aussi pour l'étude de diverses phases du cycle hydrologique telles que l'infiltration, l'évapo-transpiration, le transport de constituents solubles par drainage, etc. (WMO, CHOW)

0222a macadamia

A small genus of Australian evergreen trees (family Proteaceae) including one (M. ternifolia) that is widely cultivated in warm regions for its edible nut. (W)

0222b mango

A large evergreen tree (Mangifera indica) that is native to India, has alternate coriaceous leaves and small yellow or reddish flowers in branching terminal panicles, and produces mangoes and inferior grayish timber. (W)

0223 maritime climate

Same as marine climate. (AMS)

(1591M)

0223a melon (Cucumis melo)

A plant of the gourd family Cucurbitaceae (order Cucurbitales). It is a frost-tender annual trailing vine grown for its edible fruit. The fruits are diverse, ranging in weight from 1 to 4 kilograms (2 to 9 pounds); in shape from slightly oblate through globular to oval and long tapered. (EB)

0224 mesophyte 581.526.4
végétation mésophyte

Plant that grows under intermediate moisture conditions. (IGH)

Plantes qui, pour leur croissance, évitent aussi bien l'humidité que la sécheresse extrêmes. (GIH)

0225 meteorology 551.5
météorologie

Science of the atmosphère. (WMO)

(1591M)

Science de l'atmosphère. (WMO)

0225a mildew

A general term for a number of obligate plant parasites which occur in two fungal orders, the Peronosporales, which bears downy mildew, and the Perisporales, which bear powdery mildew on the surface of the plant, e.g. barley mildew. (CDST)

0225b millet

a grass (Panicum miliaceum) extensively cultivated in Europe and Asia for its grain which is used both as an article of diet for man and as food for birds, and in the U.S., sometimes grown for hay. (W)

0226 mixing ratio
rapport de mélange

551.571

For moist air, ratio of the mass of water vapour to the mass of dry air

(1591M)

with which the water vapour is associated. (WMO)

Pour l'air humide, rapport de la masse de vapeur d'eau à la masse d'air sec avec laquelle cette vapeur est associée. (WMO)

0227	mode	519.241.2
	mode syn. dominante	

In a distribution of discrete variables, the variate which occurs most frequently. In a distribution of continuous variables, the variate with maximum probability density. (CHOW)

Dans une distribution de variables discrètes, valeur de la variable que prend le plus grand nombre des membres de la population. Dans une distribution de variables continues, valeur ayant la densité de probabilité maximum. (CHOW)

0228	moisture, air see also humidity, air	551.571
	humidité de l'air voir aussi humidité	
	atmosphérique	

Water as it occurs in various forms in the air. (IGH)

Vapeur qui peut exister sous des formes diverses dans l'air. (GIH)

0229	moisture, antecedent soil humidité antécédente du sol syn. humidité initiale du sol	551.579.5	556.142
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Parameter expressing soil-moisture conditions at the start of a rain storm. (IGH)

Paramètre exprimant les conditions d'humidité du sol au début d'une averse. (GIH)

0230	moisture, available soil capacité de rétention utile du sol	551.579.5	556.142
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Water in the soil available to plants. It is normally taken as the water in the soil between wilting point and field capacity. In this context water-holding capacity of a soil is used and is identical to the available water. (IGH)

Quantité d'humidité du sol disponible

pour les plantes. Cette quantité est généralement définie comme la différence entre le point de flétrissement et la capacité au champ. Dans ce contexte, on utilise la capacité de rétention du terrain comme étant identique à la quantité d'eau disponible. (GIH)

0231	moisture content teneur en eau	551.579.5	556.15
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(1) For moist soils syn. water content, moisture percentage.

The percentage of water in the soil, expressed on a dry-weight basis or by volume. (CID)

(2) for air see humidity, specific. (WMO)

(1) Pour les sols humides ; pourcentage d'eau contenue dans le sol par rapport au poids du sol sec ou au volume. (CID)

(2) Pour l'air humide : voir humidité spécifique. (WMO)

0232	moisture deficiency déficit humidité	551.579.5	556.42
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Depth of water required to bring the soil-moisture content up to the field capacity. (IGH)

Quantité d'eau exprimée en hauteur nécessaire pour amener la teneur en eau d'un sol humide à sa capacité au champ. (GIH)

0233 moisture factor

One of the simplest measures of precipitation effectiveness, given by Lang as:

$$\text{Moisture factor} = \frac{P}{T}$$

where P is precipitation in cm and T mean temperature in °C for the period in question.

This index recognizes only that as temperature increases, the effective moisture decreases due to greater evaporation. A number of greater refinements of this concept exist: De Martonne's index of aridity; Angström's humidity coefficient; Gorcsynski's aridity coefficient; Thornthwaite's precipitation effectiveness index and moisture index; and Köppen's formulas for outlining

(1591M)

steppe climate and desert climate.

0234 moisture index

As used by C.W. Thornthwaite in his 1948 climatic classification: an overall measure of precipitation effectiveness for plant growth which takes into consideration the weighted influence of water surplus and water deficiency as related to water need and as they vary according to season. For a given station, it is calculated by the formula:

$$I_m = \text{humidity index} - \frac{6}{10} \text{ aridity index},$$

Which becomes

$$I_m = \frac{100s - 60d}{n},$$

where I_m is the moisture index, s the water surplus, d the water deficiency, and n the water need. The calculation of s and d is made on a normal month-to-month basis, with s being the total surplus from all months having a water surplus, and d the total of all monthly deficiencies, each is represented by the difference between monthly precipitation and monthly potential

evapotranspiration (in cm or inches).
n is the annual potential evapo-
transpiration.

The moisture index replaced
Thornthwaite's previously used (1931)
precipitation-effectiveness index.
(AMS)

0235	moisture, intermediate belt of soil zone intermédiaire	556.32
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That part of the unsaturated zone which
extends from the lower edge of the zone
of soil water to the upper limit of the
capillary zone. (IGH)

Partie de la zone non saturée comprise
entre la zone d'évapo-transpiration et
la frange capillaire. (GIH)

0236	moisture probe humidimètre	551.508.79	,551.579.5
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Probe by means of which soil moisture
can be measured. (IGH)

Sonde spéciale pour la mesure de
l'humidité des sols. (GIH)

0237	moisture profile profil d'humidité	551.579.5	556.142
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Curve representing the variation of
soil moisture versus depth. (WMO)

Graphique représentant les variations
de l'humidité d'un sol en fonction de
la profondeur. (WMO)

0238	moisture, soil humidité du sol	551.579.5	556.142	556.322.2
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Moisture contained in the portion of
the soil which is above the water
table, including water vapour which is
present in the soil pores. (WMO)

Humidité contenue dans la partie du sol
située au-dessus de la surface de la
nappe souterraine libre, y compris la
vapeur d'eau contenue dans les
interstices. (WMO)

0239	monsoon
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A name for seasonal winds (derived from Arabic mausim, a season). It was first applied to the winds over the Arabian Sea, which blow for six months from northeast and for six months from southeast, but it has been extended to similar winds in other parts of the world. Even in Europe the prevailing west to northwest winds of summer have been called the "European monsoon" (compare etesian, meltém). The primary cause is the much greater annual variation of temperature over large land areas compared with neighboring ocean surfaces, causing an excess of pressure over the continents in winter and a deficit in summer, but other factors such as the relief features of the land have a considerable effect.

The monsoons are strongest on the southern and eastern sides of Asia, the largest land mass, but monsoons also occur on the coasts of tropical regions wherever the planetary circulation is not strong enough to inhibit them. They have been described in Spain, northern Australia, Africa except the Mediterranean, Texas and the western coasts of the United States and Chile. In India the term is popularly applied chiefly to the southwest monsoon and, by extension, to the rains which it brings.

See brisa, elephanta. (AMS)

0239a mulberry

A tree of the genus Morus that bears an edible pleasantly acid berrylike, usually dark purple fruit. (W)

0239b mung bean

(Also called mongo). An erect bushy annual bean (*Phaseolus aureus*) that is probably native to India, is widely cultivated in warm regions for its edible usually green or yellow seeds, for green manure, or for forage, and is the chief source of the bean sprouts used in Chinese cookery. (W)

0239c mycotic abortion

(1) A type of abortion in animals which is linked to the presence of mycotoxin in hay made during wet weather. The disease incidence is particularly severe if the animals are housed and if the hay bales are broken out in a closed building

(2) Work by P.K.C. Austwick in New Zealand showed that mycotic abortion in that country was also weather sensitive. (MAM)

0239d mycotic dermatitis of sheep

(1) Lumpy wool. A dermatitis of sheep due to infection of the skin by the fungus *Dermatophilus dermatonomus*. (CDST)

(2) The quality of wool in Britain, judged by the proportion which is "cast", that is to say, it is placed in the lowest category, shows remarkable variations from region to region and from one year to another. It has been suggested that this may be largely or partly due to the incidence of a disease called mycotic dermatitis, which is known to be spread during heavy rain, probably when the flocks are bunched together in search of shelter or during fright of thunder and lightning. (MAM)

0239e nematodiriasis

(1) Infestation with or disease caused

(1591M)

by reddish nematode worms (family strongylidae) having elongated necks and being parasitic in the small intestines of ruminants and sometimes other mammals. (W)

(2) This disease of young lambs is due to a single species of nematoid, Nematodirus battus, and is restricted to a limited season in late spring. Its life-cycle is known in general terms, in that infected lambs deposit the parasite infection in their faeces in early summer, the eggs subsequently developing slowly through the successive larval stages reaching an unhatched infective stage in autumn. (MAM)

0240	net storm rain pluie nette	556.161	551.577.37	551.579.1
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Portion of rainfall during a storm which reaches a stream channel as direct surface flow. (IGH)

Partie de la précipitation qui est disponible pour l'écoulement direct. (GIH)

0241	Neutron logging méthode des neutrons	556.124.2	550.832.53
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Vertical recording of induced neutron reactions, especially sensitive to hydrogen contents of rocks. (IGH)

Sondage vertical fondé sur la mesure du nombre de réactions provoquées par les neutrons, qui sont particulièrement sensibles à la teneur en hydrogène des roches. (GIH)

0242	nipher shield écran de nipher	551.508.77
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Wind shield for precipitation gages, shaped like an inverted cone, with the base of the cone level with the lip of the gage. (IGH)

Ecran destiné à protéger les pluviomètres contre le vent. Ce dispositif à la forme d'un cône inversé dont la base se trouve au niveau de l'arête du pluviomètre. (GIH)

0242a oat

(1591M)

A plant of the genus Avena, especially: a cereal grass (Avena sativa) that is an important grain crop in temperate regions through its wide cultivation as a source of food for both human beings and animals. (W)

0242b olive

A plant of the genus Olea, specifically: a tree (Olea europaea) cultivated for its fruit from antiquity in Asia Minor and southern Europe and more recently elsewhere and having a trunk that is often gnarled, leaves resembling the willow, and yellow flowers. (W)

0242c onion

A widely cultivated originally Asiatic plant (Allium cepa) that has slender hollow tubular leaves and an edible rounded bulb made up of close concentric easily separable layers, that has a notably strong sharp smell and taste, and that is widely used as a vegetable. (W)

0242d orange

Any of the various rather small evergreen and often spiny trees of the genus Citrus (as C. aurantium, C. sinensis, or C. reticulata) that have pointed white unifoliate leaves, hard yellow wood, and usually fragrant white flowers and that produce fruits which are oranges. (W)

0242e ox

The domestic bovine (Bos taurus), especially an adult castrated male used for a draft animal or for food.

0243 pan, BPI
bac BPI

556.132.8.078

Circular evaporation pan, six feet in diameter and two feet deep, made of unpainted galvanized iron. The pan is buried in the ground so that about two inches of the rim extends above the surrounding ground, and the water level

(1591M)

is maintained at about ground level.
(IGH)

Bac d'évaporation cylindrique en tôle galvanisée non peinte, mesurant environ 1 m 80 de diamètre et 60 cm de profondeur. Le bas est enterré de manière que le bord supérieur se trouve à environ 5 cm au-dessus du sol, et l'eau est maintenue à peu près au même niveau que le sol. (GIH)

0244 pan coefficient

The ratio of the amount of evaporation from a large body of water to that measured in an evaporation pan. (AMS)

0245	pan, floating bac flottant	551.508.72	556.132.8
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Evaporation pan floating in a body of water. (IGH)

Bac d'évaporation flottant sur un plan d'eau. (GIH)

0246	pan, sunken bac enterré	551.508.72	556.131.112
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(1591M)

Evaporation pan buried in the ground to within a short distance of its rim. (IGH)

Bac évaporatoire enfoui dans le sol à faible profondeur. (GIH)

0246a papaya

A tree (Carica papaya) native to tropical America and having long-petioled palmately 7-lobed leaves, clusters of dioecious yellow flowers and large oblong fruit that has a pulpy flesh and thick rind and is eaten raw, boiled as a vegetable, pickled or preserved. (W)

0247 parshall flume
canal jaugeur parshall

627.13

Improved venturi flume to measure the flow of water in open conduits. It consists essentially of a contracting length, a throat and an expanding length. (IGH)

(1591M)

Canal venturi perfectionné pour mesurer le débit d'eau dans les canaux découverts. Il comprend essentiellement un tronçon convergent, une gorge et un tronçon divergent. (GIH)

0248 partial drought

In British climatology, a relative drought period of at least twenty-nine consecutive days during which the average daily rainfall does not exceed 0.01 in.

Compare absolute drought. (AMS)

0248a pea

A variable annual leguminous vine (Pisum sativum) that is of uncertain natural origin and has been cultivated probably since pre-historic times for its rounded smooth or wrinkled edible seeds which are rich in protein and are borne severally in dehiscent pods. Called also garden pea. (W)

0248b peach

(1591M)

A low spreading freely branching tree (Prunus persica) that is a native of China but cosmopolitan in cultivation in temperate areas and often found as an escape and that has drooping lanceolate leaves, sessile usually perile flowers borne on the naked twigs in early spring, and a fruit which is a drupe with a single seed enclosed in a hard endocarp. Compare cherry, plum. (W)

0248c pechay

(Also called chinese cabbage). Either of two Asiatic brassicas (Brassica pekinensis and B. chinensis) somewhat resembling cabbage and widely used as greens, the first forming an elongated compact head of broad light green leaves, and the second a loose chardlike head of dark green leaves. Called also respectively petsai and pakchoi and together celery cabbage, lettuce cabbage. (W)

0248d peanut

(1591M)

A low branching annual herb (Arachis hypogaea) that has slightly hairy stems, bijugate leaves, and showy yellow flowers initially sessile but with a hypanthium which elongates and bends into the soil where the ovary ripens into a reticulated usually constricted indehiscent pod containing one to three edible seeds and that is probably native to Brazil but is cultivated in most and many mild temperate regions for its oily seeds and as forage. (W)

0248e pear

A tree of the genus Pyrus (especially P. communis) that bears fleshy oblong pome fruit that is generally larger at the apicol end and has grit cells throughout the flesh. Compare: apple. (W)

0248f pepper

A plant of the genus Piper, especially: a woody vine (P. nigrum)

(1591M)

with ovate leaves and spicate flowers that is native to the oriental tropics but widely cultivated in tropical regions for its red berries from which the condiment pepper is prepared.

0248g pepper (vegetable)

A plant of the genus Capsicum (especially C. frutescens) that bears the many-seeded berry enclosed in a thickened integument like an indehiscent pod that varies greatly in shape and size in different varieties, usually red or yellow when ripe, and includes numerous cultivated forms used in the preparation of condiments and relishes and as vegetables. (W)

0248h peppermint

A pringent and aromatic mint (Mentha piperita) with dark green lanceolate leaves and whorls of small pink flowers in spikes. Peppermint oil or peppermint spirit is a preparation consisting of the dried leaf and flowering top of peppermint. (W)

(1591M)

0249	percolation see also filtration; seepage	556.14	556.34
	percolation voir aussi filtration; suintement		

Flow of a liquid through a porous medium, e.g. of water in soil, under the action of moderate hydraulic gradients, mainly downward gravity flow. (IGH)

0249a persimmon

A medium-sized tree (Diospyros virginiana) of the southern and eastern U.S. with hard fine-grained wood, oblong leaves, and greenish yellow or greenish white bell-shaped flowers followed by a pale orange to reddish orange several-seeded berry that is edible when fully ripe but usually extremely astringent when unripe. (W)

0250 phenology

The science which treats of periodic

(1591M)

biological phenomena with relation to climate, especially seasonal changes. Phenological events are stages of plant growth.

From a climatologic viewpoint, these phenomena serve as bases for the interpretation of local seasons and the climatic zones, and are considered to integrate the effects of a number of bioclimatic factors.

Phenology may be considered a branch of the science of bioclimatics. (AMS)

0251 phreatic surface

Same as water table. (AMS)

0252 phreatic water

Same as ground water. (AMS)

0253 phreatic zone

Same as zone of saturation. (AMS)

0254 phreatophytes
phréatophytes

582.526

(1591M)

Water-loving plants that grow mainly along stream courses and/or where their roots reach the capillary fringe. (CHOW)

Plantes vivant surtout le long des cours d'eau, et dont les racines profondes atteignent la frange capillaire. (CHOW)

0255 phytoclimatology

The study of the microclimate in the air space occupied by plant communities, on the surfaces of the plants themselves and, in some cases, in air spaces within the plants. (AMS)

0256 Piché evaporimeter

A porous paper wick atmometer. The instrument consists of a graduated tube, closed at one end, which is filled with distilled water and then

covered with a larger circular piece of filter paper held in place by a disc and collar arrangement. In operation the instrument is inverted so that the distilled water is in contact with the filter paper. The amount of evaporation which occurs during an interval of time is determined by noting the change in level of the meniscus of the water. (AMS)

0256a pineapple

A plant (Ananas cosmosus) native to tropical South America but now widely cultivated in the tropics that has rigid spiny margined recurved leaves and a short stalk with a dense oblong head of small abortive flowers. The fruit of the pineapple is a sorosis consisting of the succulent fleshy inflorescence that ripens into a solid mass invested with the tough persistent floral bracts and crowned with a tuft of small leaves. (W)

0256b pistachio

A small tree (Pistacia vera) of

(1591M)

southern Europe and Asia Minor having leaves with 3 to 5 broad leaflets, greenish brown panicle flowers, and a large fruit that bears the edible green seed. (W)

0256c plum

Any of numerous trees and shrubs of the genus Prunus that have medium sized globular to oval smooth-skinned fruits which are drupes enclosing a smooth elongated flattened seed and that include various improved forms cultivated for their fruits or for their ornamental flowers or foliage. Compare: cherry, peach. (W)

0257 pluviograph

Same as recording rain-gage. (AMS)

0258 pluviometer

Same as rain gage (AMS)

0259 Point data
Observations ponctuelles

556.044

Observations at a geographic site, e.g. the site of a rain gauge or a stream-gauging station. (CHOW)

Observations faites en un site géographique déterminé, par ex. un emplacement de pluviomètre ou une station de jaugeage. (CHOW)

0260 Point precipitation
pluie locale

551.577.3

Precipitation at a particular site in contrast to the areal precipitation.
(IGH)

Précipitations tombées en un endroit donné par opposition aux précipitations moyennes tombées dans une zone. (GIH)

0260a pomegranate

A tropical African and Asiatic tree

(1591M)

(Punica granatum) that bears the several-celled angular berry about the size of an orange that contains many seeds in a crimson acid pulp which is eaten raw or made into a beverage, and has a thick astrigent rind used, together with the flowers as a source of a red dye. (W)

0260b potato

(1) An erect herb (Solanum tuberosum) that has compound pinnate leaves, white, yellow, blue or purple flowers, and green, yellowish, or purplish berries, a native to the highlands of South and Central America, and is widely cultivated especially in the temperate regions as a garden vegetable.
(2) The edible starchy tuber that is an enlargement of an underground stem of this plant, also called Irish potato, white potato. (W)

0260c potato aphid

A common aphid (Macrosiphum solanifolii) that occurs on the potato and many other plants as well as on

some orchard trees and that usually
overwinters on rosebushes.

0260d potato blight

Disease in potatoes caused by a fungus
(Phytophthora infestans). Potato
blight in Europe is associated with
warm or mild weather, because the
climate is centered around the lower
temperature infection limit of 10°C.
In America, it is thought of as a cold
weather disease, because this lower
threshold is always cleared and the
disease is more likely to be limited by
high temperatures (and low humidity).
(MAM)

0261 potential evaporation

Same as evaporative power. (AMS)

0262	potential evapotranspiration	551.573	556.135
	évapotranspiration potentielle		

(1) Maximum quantity of water capable

(1591M)

of being evaporated in a given climate, from a continuous stretch of vegetation covering the whole ground and well supplied with water.

It thus includes evaporation from the soil and transpiration from the vegetation of a specified region in a given time interval, expressed as depth. (WMO)

(2) Generally, the amount of moisture which, if available, would be removed from a given land area by evapotranspiration, expressed in units of water depth.

It can be measured in a dry basin by determining the amount of irrigation water used, in wetter regions, by the difference rainfall and runoff, or by the supply of water required to maintain a constant amount of soil moisture in an isolated block of the soil.

See evapotranspirometer.

(3) An empirical index of the above. As given in Thornthwaite's 1948 climatic classification, it is equal to the summation of the twelve successive monthly values of the expression ct^a , where t is the monthly mean temperature in °C, and a and c are coefficients which depend upon the annual heat-index. (AMS)

Quantité maximale d'eau pouvant, sous un climat donné, s'évaporer d'un

couvert végétal continu bien alimenté en eau. Elle comprend donc l'évaporation par le sol et la transpiration par les plantes exprimées en hauteur d'eau pendant une période de temps donnée. (WMO)

(2)

(3)

0262a powdery mildew

A perfect fungus of the family Erypiphaceae or an imperfect fungus of the genus Oidium distinguished by the abundant powdery conidia produced on the host. e.g.: Wheat, barley powdery mildew (Erysiphe graminis) and the powdery mildew of sugar beet (Erysiphe betae) (W)

0263 precipitation
précipitation

551.577

556.12

(1) Liquid or solid products of the condensation of water vapour falling from clouds or deposited from air on the ground. (IGH)

(2) Amount of precipitation (as defined under (1)) on a horizontal

(1591M)

surface in a day, month or year, and designated as daily, monthly or annual precipitation. (CID)

(1) Produits, sous forme liquide ou solide, de la condensation de la vapeur d'eau, tombant des nuages ou déposés par l'air humide sur le sol. (GIH)

(2) Quantité de précipitation tombée (selon la définition 1) sur une surface horizontale pendant un jour, un mois ou une année et désignée comme précipitation journalière, mensuelle ou annuelle. (GIH)

0263a	precipitation, areal	551.577.21	556.121
	precipitation surfacique		

Precipitation in a specific area expressed as the average depth of liquid water over this area. (IGH)

Precipitation moyenne, exprimée en hauteur d'eau, recueillie sur une zone de superficie donnée. (GIH)

0264	precipitation, artificial see also cloud seeding	551.509.617
	pluie artificielle voir aussi ensemencement des nuages	

Precipitation of water particles, in the liquid or solid form, attributable to human action on a cloud, as in cloud seeding. (WMO)

Précipitation de particules d'eau, sous forme liquide ou solide, attribuable à l'action de l'homme sur les nuages. (WMO)

0265	precipitation, effective see also rainfall, excess précipitation effective voir aussi pluie nette	551.577	.551.579	.556.161
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(1) That part or the rainfall that produces runoff.

(2) In agriculture that portion of the rainfall which remains in the soil and contributes to the growth of crops. (IGH)

(1) Partie de la précipitation qui produit l'écoulement,

(2) En agriculture, partie de la précipitation qui reste dans le sol et contribue au développement des plantes cultivées. (GIH)

0266 precipitation-evaporation quotient

(1591M)

(Abbreviated P-E quotient.) A measure of longterm precipitation effectiveness; the ratio of the normal annual precipitation to the normal annual evaporation.

This index was used early as 1905 by Transeau. It should not be confused with the similar precipitation-evaporation ratio or precipitation effectiveness index employed by Thornthwaite in 1931. (AMS)

0267 precipitation-evaporation ratio

(Abbreviated P-E ratio; also called precipitation effectiveness ratio.) For a given locality and month, an empirical expression devised for the purpose of classifying climates numerically on the basis of precipitation and evaporation

$$\text{P-E ratio} = 11.5 \left(\frac{P}{T - 10} \right)^{10/9}$$

where P is the normal monthly precipitation in inches, and T the normal monthly temperature in °F. All temperatures below 28.4°F are given the value of 28.4°, and P-E ratios greater than 40 are counted as 40.

See precipitation-effectiveness
index, compare precipitation-
evaporation quotient. (AMS)

0268 precipitation gauge, accumulative, 551.508.77
precipitation gage,, cumulative (A) syn.
totalizer, totalizer precipitation gauge,
storage precipitation gauge
pluviomètre totalisateur

Precipitation gauge used at stations
which are visited only at long-spaced
time intervals. (WMO)

Genre de pluviomètre utilisé dans les
stations qui ne peuvent pas être
visitées fréquemment. (WMO)

0269 precipitation intensity 556.121.6 551.577.3
intensité d'une précipitation

Amount of precipitation collected in
unit time interval. (WMO)

Quantité de précipitation recueillie
dans l'unité de temps. (WMO)

0270 precipitation station

(1591M)

As defined in 1956 by the World Meteorological Organization, a station at which only precipitation observations are made.

See third-order climatological station. (AMS)

0271 probe

In geophysics, the device used to make a sounding. (AMS)

0272 psychrometer

An instrument used for measuring the water vapor content of the atmosphere, a type of hygrometer. It consists of two thermometers, one of which (the dry bulb) is an ordinary glass thermometer, while the other (wet bulb) has its bulb covered with a jacket of clean muslin which is saturated with distilled water prior to an observation. When the bulbs are suitably ventilated, they indicate the thermodynamic wet-and-dry-bulb temperatures of the atmosphere.

See hydrodek, aspiration

psychrometer, Asmann psychrometer,
sling psychrometer. (AMS)

0272a pumpkin

A plant of the genus Cucurbita that bears pumpkins and is usually a strong-growing pridely vine with large lobed leaves and with yellow flowers having erect corolla lobes. (W)

0272b rabbit

A small grayish brown mammal (Oryctologus cuniculus) that differs from the related hares in its burrowing habits and in having the young born naked and helpless, is native to Southern Europe and Northern Africa but has been introduced into various other regions where it is often a pest because of its rapid reproduction, and has developed under domestication many varieties differing from the wild form in size, conformation, and colouring and variously adapted to the production of meat and fur or for pet and show stock.

(1591M)

0272c raddish

A plant (Raphanus sativus) that has a pungent fleshy root eaten raw as a relish.

0273 Radiation, net 551.521
Radiation nette

Difference between downward and upward (total and terrestrial) radiation; net flux of all radiations. (WMO)

Différence entre la radiation vers le bas et la radiation vers le haut (rad. totale et rad. terrestre); flux net de toutes les radiations. (WMO)

0274 rain 551.578.1 556.123
pluie

Precipitation of liquid water, either in the form of drops of more than 0,5 mm diameter, or of smaller, widely scattered drops. (WMO)

Précipitation liquide, soit sous forme de gouttes de diamètre supérieur à 0.5 mm, soit sous forme de gouttelettes plus petites et largement dispersées. (WMO)

0275 rainfall regime

The character of the seasonal distribution of rainfall at any place. The chief rainfall regimes, as defined by W.G. Kendrew, are: equatorial, tropical, monsoonal, oceanic and continental westerlies, and Mediterranean. (AMS)

0276 rainforest

Generally, a forest which grows in a region of heavy annual precipitation. Two types are distinguished: (a) the tropical rain forest (often simply called the "rain forest"); and (b) the temperate rain forest. (AMS)

0277 rain gage

(1591M)

(Also called pluviometer, ombrometer, precipitation gage.) An instrument designed to measure the amount of rain that has fallen. Rain gages are classified according to their operation in the following manner: (a) recording rain gage, (b) nonrecording rain gage, and (c) rain-intensity gage.

See also ombrometer, snow gage. (AMS)

0278 rain gauge, raingage (A) syn. 551.508.77
pluviometer
pluviomètre

Instrument for measuring the depth of water from precipitations supposedly distributed over a horizontal impervious surface and not subject to evaporation. (WMO)

Instrument servant à mesurer la hauteur de pluie supposée tombée sur une surface horizontale et non soumise à l'évaporation. (WMO)

0278a rain gauge, non-recording; raingage, 556.084
non-recording (A)
pluviomètre simple

Gauge which does not make a record of what it measures and therefore the measurement has to be made manually. (IGH)

Pluviomètre non muni de dispositif d'enregistrement; les mesures doivent

- 188 -

donc être effectuées manuellement.
(GIH)

0279	rain, residual pluie résiduelle	551.577	551.579.5	556.161
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Rain that falls at the end of a storm
at a rate less than the infiltration
capacity. (CID)

Pluie qui tombe vers la fin d'une
averse avec une intensité inférieure à
la capacité d'infiltration. (CID)

0280	rain shadow ombre pluviométrique	551.577.51
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Region, situated on the lee side of a
mountain, or mountain range, where the
rainfall is much less than on the
windward side. (WMO)

Région situées d'un côté sous le vent
d'une montagne ou d'une chaîne de
montagnes, où l'intensité de la pluie
est moins forte que celle du côté au
vent. (WMO)

0281	rainfall chute de pluie	551.578.1	556.123
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Supply of liquid water falling from the
atmosphere expressed as depth of water
on a horizontal surface. (IGH)

Apport d'eau liquide tombant de
l'atmosphère, exprimé en hauteur d'eau
sur une surface horizontale. (IGH)

0282	rainfall area aire d'une pluie (1591M)	551.577.2	556.123
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Geographic extent of the rainfall.
(IGH)

Extension géographique d'une pluie
donnée. (GIH)

0283	rainfall distribution répartition de la précipitation	551.577.2	556.123
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Manner in which depth of rainfall
varies in space and time. (IGH)

Façon dont la hauteur de précipitations
varie dans le temps et dans l'espace.
(GIH)

0284	rainfall, excess, see also rainfall, effective pluie nette voir aussi précipitation effective	551.577	551.579.1	556.161
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Rainfall available for direct runoff.
(IGH)

Volume d'eau tombée disponible pour
l'écoulement direct. (GIH)

0285	rainfall intensity intensité d'une pluie	556.121.6	551.578.13
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Rate at which rainfall occurs,
expressed in unit of depth per unit of
time. (CID)

Débit d'une pluie exprimé en unités de
hauteur par unité de temps. (CID)

0286 rainfall intensity frequency 551.577.36
 fréquence d'une intensité de pluie donnée

Average time interval between the
occurrence of rainfall of a given
intensity and that of an equal or
greater intensity. (IGH)

Interval de temps moyen entre la chute
de pluie d'une intensité donnée et
celle d'une intensité égale ou
supérieure. (GIH)

0287 rainfall maximization 551.577.37
 maximalisation des pluies

(1) Moisture maximization: the process
of adjusting storm precipitation upward
to a theoretical value that would have
pertained if the moisture content of
the air had been at the maximum for the
location and season but other storm
conditions remained unchanged.

(2) Sequential maximization: reducing the observed elapsed time between storms to develop a hypothetical severe precipitation sequence.

(3) Spatial maximization: reducing the distance between precipitation storms or storm bursts to develop a hypothetical severe precipitation sequence. (IGH)

(1) Maximalisation de l'humidité : processus consistant à majorer la hauteur des précipitations tombées pendant une averse pour qu'elle corresponde à la valeur théorique qui aurait été enregistrée si l'humidité de l'air avait été à son maximum à l'endroit et pendant la saison considérée, les autres conditions de l'averse demeurant inchangées.

(2) Maximalisation séquentielle : réduction du temps écoulé qui a été observé entre les averses pour établir une succession hypothétique de fortes précipitations.

(3) Maximalisation spatiale : réduction de la distance entre les averses de pluie ou leur renforcement pour établir une succession hypothétique de fortes précipitations. (GIH)

0288	raingauge, recording; rainage, recording (A) syn. rain recorder; pluviograph pluviographe	551.558.77
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(1591M)

Instrument which includes an arrangement for the time recording of the depth of water from precipitation. (WMO)

Instrument qui comporte un dispositif pour l'enregistrement du temps au cours de la mesure d'une précipitation. (WMO)

0289	rainstorm orage	551.577.37	556.123
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Meteorological event characterized by rainfall. (IGH)

Perturbation atmosphérique accompagnée de pluie violente. (GIH)

0289a rainy climate

In W. Köppen's climatic classification, any climate type other than the dry climates. However, it is generally understood that this refers principally to the tree climates and

not to the polar climates. Compare moist climate, wet climate. (AMS)

0290 rainy season

(Also called wet season.) In certain types of climate, an annually recurring period of one or more months during which precipitation is a maximum for that region, the opposite of dry season. This division of climate is limited to those regions where the existence and regular recurrence of a rainy season is a primary feature of the climate, thus, mostly to the tropics and subtropics.

In a monsoon climate and savannah climate. it occurs in the summer (with the onshore monsoon), in India this is the southwest monsoon, and the rainy season itself is sometimes termed "the monsoon". In a Mediterranean climate, the rainy season occurs in winter. Near the equator, some regions experience two rainy seasons annually (the equinoctial rains). (AMS)

0291 relative humidity

(1591M)

(Popularly called humidity.) The (dimensionless) ratio of the actual vapor pressure of the air to the saturation vapor pressure. The corresponding ratios of specific humidity or of mixing ratio give approximations of sufficient accuracy for many purposes in meteorology. The relative humidity is usually expressed in per cent, and can be computed from psychrometric data.

The ratio of mixing ratio to saturation mixing ratio was preferred as a definition of relative humidity by the International Meteorological Organization.

See also absolute humidity. dew point. (AMS)

0292	retention	551.577	.551.579	.556.161
	rétention			

That part of the precipitation falling on a drainage area which does not escape as surface streamflow, during a given period. (IGH)

Partie de la précipitation tombant sur un bassin versant, qui ne s'échappe pas sous forme d'écoulement fluvial pendant une période de temps donnée. (GIH)

0293 retention, specific see also capacity, 556.322
 field
 capacité de rétention voir aussi
 capacité au champ

Field capacity expressed as volume
percentage. (CID)

Capacité au champ ou quantité d'eau
retenue dans le sol après que l'eau de
gravité se soit écoulée, exprimée ici
en pour cent de volume. (CID)

0293a rice

An annual cereal grass (*Oryza sativa*)
widely cultivated in warm climates for
its seed that is used for human food,
for its hulls and other by-products
that are used to feed livestock, and
for its straw that is used in making
paper. (W)

0293b rice borer

Any of several caterpillars that are

(1591M)

the larvae of spiraled moths and that
feeds on rice plants.

0294 rime see also frost (1) 551.574.42
 givre

Deposit of ice composed of grains more
or less separated by trapped air,
sometimes adorned by crystalline
branches. (WMO)

Léger dépôt de glace en petits
fragments plus ou moins séparés par
de l'air emprisonné, causé par la
condensation de la vapeur d'eau
directement sous forme cristalline sur
des objets à une température au-dessous
du point de congélation. (WMO)

0295 root zone 556.322
 zone racinaire

Layer of the soil interwoven by plant
roots. (IGH)

Couche du sol dans laquelle se
développent les racines des plantes.
(GIH)

0296	runoff, surface syn. flow, surface ruissellement	551.579.1	556.164
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That part of the precipitation which travels on the ground surface. (IGH)

Partie des précipitations qui s'écoule à la surface du sol. (GIH)

0296a rye

A hardy annual cereal grass (Secale cereale) that has loose spikes with an articulate rachis and long-awned glumes and is widely cultivated especially in northern continental Europe where its grain is the chief ingredient for black bread. In North America it is used especially as a cover crop and for soil improvement and frequently for forage. (W)

0296b sago palm

Any of various lofty pinnate-leaved Indian and Malaysian palms of the genus

(1591M)

Metroxylon (as M. laeve or M. rumphii) that yields sago, a dry granulated or powdered starch prepared from its pithy trunk and used as a thickening agent in foods (as a pudding) and as textile stiffening.

0297	salinity	556.114.5
	salinité	

Concentration of dissolved salts in water, expressed in G/KG, when the organic matter has been oxidized, the carbonate converted to oxides, and the bromine and iodine replaced by chlorine. (IGH)

Concentration relative des sels, généralement du chlorure de sodium, dans une eau donnée. Elle peut être exprimée en G/KG ou en nombre de parts par million de CL. (GIH)

0298	sampler, auger	550.882
	tarière à échantillons	

Hand auger used in drilling holes for soil-moisture sampling. (GHM)

Genre de vrille à main utilisée pour le forage de trous dans le sol humide pour prise d'échantillons. (GHM)

0299	saturation, effective degree of degré de saturation effective	532.546	556.332.4
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Ratio of effective water volume to the voids volume. (IGH)

Rapport de la porosité effective à la porosité totale; ou rapport entre le volume d'eau effectif et le volume des vides. (GIH)

0300	saturation vapour pressure, saturation vapor pressure (A) tension de vapeur saturante	551.571	
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Maximum possible partial pressure of water vapour in the air or atmosphere at a given temperature. (IGH)

Valeur maximale que peut atteindre la tension de vapeur de l'eau dans l'atmosphère ou dans un échantillon d'air à une température donnée. (GIH)

0301	season		
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(1591M)

A division of the year according to some regularly recurrent phenomena, usually astronomical or climatic.

In the tropics we find that precipitation is the primary factor, thus, nearly all regions have their rainy season and dry season. Winds and temperature are also considered, notably in southeast Asia where a cold season and hot season are recognized as well as the wet monsoon. In middle latitudes four seasons are recognized, which for climatological purposes are (Northern Hemisphere): winter-December, January and February, spring-March, April and May, summer-June, July and August, autumn or fall- September, October and November. The annual course of weather does not always follow these divisions closely, but the use of four periods of three calendar months each is so convenient for statistical purposes that no other division has been seriously considered. In the polar regions there are, practically, only two seasons, a long cold winter and a short summer, with spring and autumn lasting barely a month apiece. Some primitive races recognize more than four seasons, depending on a variety of natural

phenoma.

It is the science of phenology that studies the correlation of biological occurrences to climatic seasons.

The astronomical seasons extend from an equinox to the next solstice (or vice versa). (AMS)

0302	semi-confining bed couche semi-perméable	556.322.43
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Poorly pervious yet water transmitting layer. (IGH)

Couche peu perméable laissant cependant passer de l'eau. (GIH)

0303	series, annual série de valeurs annuelles	556.045
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Hydrological series whose time interval is one year. (CHOW)

Série de valeurs hydrologiques dont l'intervalle de temps unité est l'année hydrologique. (CHOW)

0303a sesame

(1591M)

An East Indian annual erect herb (Sesamum indicum) having chiefly rosy or white flowers. Its small obovate flattish seeds that yield an oil are used as flavouring agent. (W)

0303b sharav

A weather phenomenon in Israel which affects the Levant and occurs during transitional seasons and to a lesser degree in summer. It may occur as well during dry winters.

The term "sharav" designates hot and dry weather. This weather type is frequently accompanied by weak or fresh east or south-east winds and duststorms. Sharav conditions might last only a few hours or up to few days. (MSSI)

0303c sheep

Any of numerous ruminant mammals (gen4s Ovis) native to upland regions of the northern hemisphere and related to the goats from which they may usually be

(1591M)

distinguished by a stockier build, absence of a beard on the male, and horns that when present are more divergent and in older males often coiled into flattened lateral spirals, specifically, a mammal (O. aries) long domesticated for its flesh, specialized hair or wool, and other products and differentiated through continued selection into many breeds some of which are notable for meat production, others for wool, and a few for fur or milk.

0304 shower see also storm
averse voir aussi tempête

Precipitation, often short-lived and heavy, falling from convective clouds. Showers are characterized by their sudden beginning and ending, generally by large and rapid changes of intensity. (WMO)

Précipitation, souvent intense et de courte durée, tombant de nuages convectifs. Les averses sont caractérisées par la soudaineté de leur début et de leur fin, et généralement par de forts et rapides changements d'intensité. (WMO)

0305 silt
 limon

(1) Inorganic granular finer soil materials, classified according to soil texture and soil separates, classification, e.g. 0.02 to 0.002 mm in diameter according to the international society of soil science, or 0.05 to 0.005 mm in diameter according to the U.S. Bureau of soils. (IGH).

(2) An unconsolidated sediment, belonging to the finest fraction, most of the particles of which are smaller than sand and larger than clay particles. (GG)

(1) Matériau inorganique à grains
fi

petites que des grains de sable et plus
grandes que des particules d'argile.
(GG)

0306 smudging

A frost-preventive measure used in
orchards. Properly, it means the
production of heavy smoke, supposed to
prevent radiational cooling, but it is
generally applied to both heating and
smoke production. (AMS)

0307 snow pack, see also snow cover
manteau nival voir aussi
couverture neigeuse

Field of naturally packed snow that
ordinarily melts slowly and yields
water during the early summer months.
(W) (IGH)

Neige accumulée pendant l'hiver à la
surface du sol, fondant d'ordinaire
lentement et apportant aux cours d'eau
un supplément d'apports liquides au
printemps ou en début d'été. (W) (GIH)

0308 soil
sol

631.4

551.311.234

(1593M)

(1) Desintegrated portion of the top layer of the surface of the earth consisting of loose or moderately cohesive deposits, e.g. gravels, sands, silts or clays, or any of their mixtures. (CID)

(2) In pedology, that earth material which has been so modified and acted upon by physical, chemical and biological agents that it will support rooted plants. (GG)

(1) Partie supérieure de l'écorce terrestre constituée de matériaux sans cohésion ou présentant une faible cohésion, tels que gravier, sable, limon ou argile ou tout mélange de ceux-ci. (CID)

(2) Pour les pédologues c'est la partie supérieure de la croûte soumise aux agents physiques, chimiques et biologiques qui est pénétrée par les racines des plantes. (GG)

0309	soil water, belt of zone d'évapo-transpiration	551.579.5	;556.142
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That part of the lithosphere,

immediately below the surface, from which water is discharged into the atmosphere in perceptible quantities by evapotranspiration. (IGH)

Partie de la lithosphère immédiatement au-dessous de la surface du sol d'où l'eau passe dans l'atmosphère en quantités appréciables par évapo-transpiration. (GIH)

0310	soil-moisture deficit syn.	551.579.5	556.142	556.322.2
	soil-moisture deficiency	631.143		
	déficit en eau			

Difference between the water-holding capacity (maximum field carrying) of the soil and the instantaneous soil moisture. (IGH)

Différence entre la capacité d'absorption du sol et la valeur instantanée d'humidité du sol. (GIH)

0311	soil-moisture retention	551.579.5	556.142	556.322.2
	eau capillaire	631.43		

Part of soil moisture retained by surface tension and molecular forces

(1593M)

against the influence of gravity. (IGH)

Partie de l'eau humidifiant le sol qui est retenue par la tension superficielle dans les espaces capillaires contre l'influence des forces de gravité. (GIH)

0311a sorghum

Any plant of the genus Sorghum, especially, any cultivated plant derived from a common species (S. vulgare), which bears seed of grain used as cereals and stock feed. Its stalks and leaves are used for fodder, hay or silage. Syrup produced by evaporating the juice from its stem resembles cane sugar but contains a high proportion of invert sugars as well as starch and dextrin. (W)

0311b soybean

An erect bushy hairy annual legume (Glycine max) native to Asia and extensively cultivated in China, Japan, and elsewhere whose seeds yield valuable products (as oil, flour, and

continuing series of hydrological observations. (GHM)

Station hydrologique établie dans chacune des régions naturelles, et qui n'a été ou ne sera guère influencée par des changements artificiels pour fournir des séries continues d'observations hydrologiques caractéristiques de la région. (GHM)

0314	station, experimental station expérimentale	556.024
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Station at which hydrological observations are being made under various natural and artificial environmental conditions. (IGH)

Station dans laquelle les observations hydrologiques sont faites sous les diverses conditions naturelles ou artificielles de l'environnement. (GIH)

0314a steppe climate

(Also called semi-arid climate). The type of climate in which precipitation is very slight but sufficient for the growth of short, sparse grass. This is typical of the steppe regions of south-central Eurasia.

(1593M)

In this climatic classification, W. Köppen assigns maximum values of annual precipitation to separate this dry climate from the rainy climates, as follows:

For precipitation

chiefly in winter, $p = 0.44 (t-32)$

For evenly distributed

precipitation, $p = 0.44 (t-19.4)$

For precipitation

chiefly in summer, $p = 0.44 (t-6.8)$

In the above, p is the mean annual precipitation in inches, and t the mean annual temperature in °F. (For minimum values of precipitation, see formulas under desert climate). This scheme was modified by Bailey to

$$p = 0.41 \left(T - \frac{R}{4} \right),$$

where R is the precipitation falling during the six colder months. In Köppen's system the steppe climate is designated BS.

The semi-arid climate of Thornthwaite corresponds closely to the steppe climate.

0314b stripe rust

A rust of wheat, rye, barley and other grasses caused by a fungus (Puccinia glurnarum) that produces elongated yellow streaks of sari. (Called also yellow rust, yellow stripe rust). (W)

(1593M)

0314c strawberry

A plant of the genus Fragaria that bears a juicy edible, usually red fruit

0314d strawberry aphid

Any of several aphids that feed on strawberry plants, especially a common and widely distributed aphid (Pentatrichopus fragaefolii).

0315 subhumid climate

A humidity province of Thornthwaite's 1931 climatic classification defined by precipitation-effectiveness index values of 32-63, and designated C. Based on its tropical vegetation, it is sometimes called grassland climate or prairie climate. In 1948, Thornthwaite divided this category into moist subhumid and dry subhumid climate, with moisture index values of 0 to +20 and -20 to 0, respectively. The zero value of moisture index also divides, over-all, the moist climates from the dry climates.

This type of climate and the semi-arid climate are very susceptible to drought conditions. (AMS)

0316	subsoil	551.311.234
	sous-sol	

Underlying soil layer, at a shallow depth, not reached by tillage. (IGH)

Partie du sol située en profondeur et non atteinte par le labourage. (GIH)

0316a sugar beet eelworm

A widely distributed destructive nematode worm (Heterodera schachtii) native to the Old World but found in several areas in North America that attacks the roots of sugar beets.

0316b sugar beet root aphid

A root aphid (Pemphigus betae) that causes severe injury to sugar beet, beet, and mangel crops in the western U.S.

0316c sugar beet root maggot

The larva of a fly (Tetanops aldrichi) of the family Otilidae that infests the roots of sugar beets in the western U.S. and parts of Canada.

0316d sugar cane

A stout tall perennial grass that is usually considered to constitute a species (Saccharum Officinarum) but is known only as a cultigen or escape in warm or tropical regions. Occurs in distinct forms with characteristic qualities and different chromosom numbers and possibly constitutes a hybrid complex, and has flat two-ranked leaves, many-jointed stalks, and a large terminal flower cluster. (W)

0317 summer

(1) The warmest season of the year everywhere except in some tropical

(1593M)

regions, the season during which the sun is most nearly overhead (i.e., at solstice). Popularly and for most meteorological purposes, summer is taken to include June, July and August in the Northern Hemisphere, and December, January and February in the Southern Hemisphere, the reverse of winter.

The character of summer varies with latitude. Near the tropics the summer is almost invariably hot, but may be significantly wet or dry. Farther poleward, the lesser intensity of storm systems becomes a dominant characteristic, and near the poles, the greater duration of sunlight is most important.

See Indian summer, Old Wives' summer, St. Luke's summer, St Martin's summer.

(2) Astronomically, the period extending from the summer solstice, about 21 June, to the autumnal equinox, about 22 September. (AMS)

0317a sunflower

A plant of the genus Helianthus, especially, common sunflower that bear seeds from which sunflower-seed oil, a pale yellow semi drying or drying fatty oil used chiefly in foods, soaps,

(1593M)

varnishes and paints, is extracted. (W)

0318 sunshine

Direct radiation from the sun, as opposed to the shading of a location by clouds or by other obstructions.

Because of variations in atmospheric turbidity (alone and in conjunction with the optical air mass), and because of the variable optical thickness of clouds, the distinction between sunshine and lack of sunshine is an arbitrary one that is largely dependent upon the type of sunshine recorder in use or upon the quality of subjective estimates. (AMS)

0319 sunshine integrator

An instrument for determining the duration of sunshine (daylight) in any locality. (AMS)

0320 sunshine recorder

An instrument designed to record the duration of sunshine without regard to intensity at a given location. Sunshine recorders may be classified in two groups according to the method by which the recorder time scale is obtained. In one class of instruments the time scale is obtained from the motion of the sun in the manner of a sun dial (see Campbell-Stokes recorder, Jordan sunshine recorder, Pers sunshine recorder). In the second class instruments the time scale is supplied by a chronograph. (see Marvin sunshine recorder).

Compare actinometer, see also heliograph, twilight correction. (AMS)

0321	surface detention	551.579.1	556.164	556.152
	rétention superficielle			

That part of the rain which remains on the ground surface during rain and either runs off, or infiltrates after the rain ends, not including depression storage. (IGH)

Partie des précipitations qui forme à la surface du sol une mince lame d'eau qui ruisselle ou qui s'infiltré quand la pluie a cessé. Elle ne comprend pas

l'emmagasinement dans les dépressions
du sol. (GIH)

0322 surface tension syn. tension, 532.61
interfacial
tension superficielle

Surface energy per unit area at the
interface of two phases (e.g. air and
water) which produces capillarity.
(IGH)

Energie par unité de superficie à
l'interface des deux phases air et eau,
qui donne naissance au phénomène de
capillarité. (GIH)

0322a swayback

(1) Enzootic ataxia. A nervous disease
of newborn and young lambs
characterized by degenerative changes
in the cerebrum of the brain, causing
inability or difficulty in standing or
walking. Associated with a low copper
content of tissues in the lamb and its
ewe and preventable by administering
copper to pregnant ewe. (CDST)

(2) Nutritional deficiency diseases

such as swayback (a copper deficiency) and hypomagnesia can be shown to be influenced by the weather. (MAM)

0323 taiga

(Also called Boreal woodland.) The open northern part of the Boreal forest. It consists of open woodland of coniferous trees growing in a rich floor of lichen (mainly "reinder moss" or "caribou moss"), and is generally cold and swampy. The taiga lies immediately south of the tundra. In spring it is often flooded by water from northward-flowing rivers, the lower reaches of which are still frozen. (AMS)

0324 taiga climate

(Also called subarctic climate.) In general, a climate which produces taiga vegetation, that is, too cold for prolific tree growth but milder than the tundra climate and moist enough to promote appreciable vegetation.

This climate appears as a subdivision of Köppen's snow forest climates and

(1593M)

Thronthwaite's microthermal climate.
(AMS)

0324a tea

A shrub, (Camella sinensis) cultivated from antiquity in China, and now in Japan, India, Ceylon, Sumatra, Java, and other countries and having lanceolate leaves and fragrant white flowers. The leaves, leaf buds, and internodes of this plant are prepared and cured for the market by several recognized methods, classed according to methods of manufacture (as green, black, or oolong) and graded according to leaf size (as congou, orange pekoe, pekoe, souchong).

0325	temperature, wet-bulb see also	556.524:	551.571
	psychrometer		
	température du thermomètre mouillé		
	voir aussi psychromètre		

Temperature read from a wet-bulb
thermometer. (IGH)

0326 Temperate Zone

(1593M)

Either of the two latitudinal zones on the earth's surface which lie between $23^{\circ}27'$ and $66^{\circ}32'N$ and S (the North Temperate Zone and South Temperate Zone, respectively).

It is one of three subdivisions of the mathematical climate, which in turn, is the earliest and simplest form of climatic classification. The other two divisions are the Frigid Zone and the Torrid Zone. (AMS)

0327 temperature province

A major division of C. W. Thornthwaite's schemes of climatic classification, determined as a function of the temperature-efficiency index or the potential evapotranspiration.

In the 1931 system, six main temperature provinces (climates) are distinguished: (A') tropical, (B') mesothermal, (C') microthermal, (D') taiga, (E') tundra, and (F') frost. In the 1948 system they are: (A') megathermal, (B') mesothermal, (C') microthermal, (D') tundra, and (E') frost.

(1593M)

Compare climatic province; see also
humidity province. (AMS)

0328	tensiometer tensiomètre	551.508.79	551,579.5	556.144.404
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Porous point or cup filled with water
buried in the soil at the point of
interest, which is used to measure soil
moisture through capillary tension.
(IGH)

Pointe ou godet en matière poreuse
rempli d'eau et enterré dans le sol
utilisé pour mesurer l'humidité du sol
en ce point au moyen de la tension
capillaire. (GIH)

0329	thalweg thalweg	551.482.211.2
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Line following the deepest part of a
streambed or channel or of a valley.
(IGH)

Ligne qui suit la partie la plus basse
d'une vallée, qu'elle soit dans l'eau
ou non. (GIH)

0330 thermogram

The record of a thermograph. (AMS)

0331 thermograph

A self-recording thermometer. The thermometric element is most commonly either a bimetal strip or a Bourdon tube filled with a liquid. In the first case the bimetal element has the form of a helical coil with one end rigid fastened to the instrument and the other to the recording pen. In the second case, the tube is made with an elliptical cross-section so that an expansion of the liquid caused by a temperature increase will cause the radius of curvature of the bend to increase, thus moving the instrument-pen, which is fastened to the tip of the tube.

A resistance thermometer and a thermoelectric thermometer may be converted into thermographs if provision is made to record their output.

See aspiration thermograph,

(1593M)

hygrothermograph, mercury-in-steel
thermometer. (AMS)

0332 Thornthwaite moisture index 551.579.1
 indice d'humidité de Thornthwaite

Climatic characteristic: ratio of the
difference of precipitation and
evapotranspiration to potential
evapotranspiration.

Caractéristique climatique définie par
la différence entre précipitation et
évapo-transpiration, divisée par
l'évapo-transpiration potentielle.
(GIH)

0332a tobacco

A plant of the genus Nicotiana
especially cultivated for its leaves
which are prepared and proaned for use
in smoking or chewing or as snuff. (W)

0332b tomato

A plant of the genus Lycopersicum, specifically: a South American perennial herb (L. esculentum), widely cultivated as an annual for its fruit. It has interruptedly pinnate leaves and yellow flowers.

0332c tomato wilt

Either of two diseases of the tomato marked by wilting: (a) a destructive disease caused by a fungus (Fusarium lycopersici) or (b) a disease caused by a bacterium (Pseudomonas solanacearum).
(W)

0333 total evaporation

Sometimes used as synonym for evapotranspiration. (AMS)

0334	transpiration	551.573	556.136
	transpiration		

(1) Process by which water from vegetation is transferred into the

(1593M)

atmosphere in the form of vapour. (WMO)

(2) The process by which water in plants is transferred as water vapor to the atmosphere.

Compare evaporation,
evapotranspiration

(3) The amount of water so transferred, usually as measured by use of a potometer or phytometer. (AMS)

Emission par la plante de vapeur d'eau dans l'atmosphère. (WMO)

0335 transpiration ratio

(Infrequently called water-use ratio.)
The ratio of the weight of water transpired by a plant during its growing season to the weight of dry matter produced (usually exclusive of roots). (AMS)

0336 tropical monsoon climate

One of Köppen's tropical rainy climates. It is sufficiently warm and rainy to produce tropical rainforest vegetation, but it does exhibit the monsoon climate influences in that it

has a winter dry season. Some authors do not recognize this as a separate climatic type, but rather include it within the tropical rain-forest climate. (AMS)

0337 tropical rainforest

(Also called equatorial forest, equatorial rainforest, selvas.) A type of forest which exists in tropical regions where precipitation is heavy (generally more than 100 inches per year). It consists mainly of a wide variety of lofty tree which carry a profusion of parasitic or climbing plants, and, in some portions, a "jungle" of dense undergrowth near the ground. For lack of marked climatic seasons, growth proceeds throughout the year.

The greatest extent of tropical rainforest is the selvas of the Amazon valley of Brazil, Colombia, and Ecuador. It is found also in tropical West Africa and the lower Congo valley, in the rainiest parts of India and Indo-China, and on some of the islands of the East Indies.

Compare temperate rainforest. (AMS)

0338 tropical rainforest climate

(1593M)

(Also called tropical wet climate.) In general, the climate which produces tropical rainforest vegetation; that is, a climate of unbroken warmth, high humidity, and heavy annual precipitation. In this sense it includes Köppen's tropical monsoon climates, and the two are lumped together by some authors. In Köppen's climatic classification this is one of the tropical rainy climates, and is distinguished by very little seasonal variation of either temperature or precipitation. Only the non-seasonal character of precipitation separates this from his tropical monsoon climate.

In Thornthwaite's classification, the corresponding climates would range from the wet tropical and perhumid megathermal to humid mesothermal. (AMS)

0339 tropical rainy climate

A major category (the A climates) in W. Köppen's climatic classification. In order to be so classified, a climate must have these two characteristics: (a) the mean temperature of the coldest

month must be 64.4°F or higher, separating it from temperate rainy climates; (b) the annual precipitation must be in excess of a certain amount to distinguish it from dry climates (see formulas under steppe climate).

The three principal types of climate included in this category are the tropical rainforest climate, tropical savanna climate, and tropical monsoon climate.

See also tropical climate, megathermal climate. (AMS)

0340 tropical savanna climate

(Also called savanna climate, tropical wet and dry climate.) In general, the type of climate which produces the vegetation of the tropical and subtropical savanna, thus, a climate with a winter dry season, a relatively short but heavy summer rainy season, and high year-around temperatures.

This is one of the tropical rainy climates in Köppen's climatic classification, and is distinguished by the smaller quantity and markedly seasonal character of precipitation, particularly the long dry season. It is closely related to Köppen's tropical monsoon climate, and, on a different

(1593M)

basis, it is actually a type of monsoon climate as is any climate with dry winters. (AMS)

0341 tundra

Treeless plains which lie poleward of the tree line. The plants thereon are sedges, mosses, and lichens and a few small shrubs. It is mostly underlain by permafrost, so that drainage is bad and the soil may be saturated for long periods.

Nearly all of the world's tundra is found in the Northern Hemisphere, where it covers vast expanses of northern North America and Eurasia. In the Southern Hemisphere, only the north extremities of Antarctica (i.e., Palmer Peninsula) and some surrounding islands contain tundra. (AMS)

Tundra type vegetation is found also above the timber line on mountains, and is referred to as alpine tundra.

0342 tundra desert

Same as arctic desert. (AMS)

0342a turkey

A large American bird (Meleagris gallopavo) originally distributed from southern Mexico throughout much of the eastern and central U.S. and northward into Canada but extinct over much of the northern and western part of its range though reintroduced as a game bird in some regions and successfully reestablished as far north as Pennsylvania, occurring in several subspecies in various parts of its range, and having typically a bronzy lustrous plumage, a naked carunculate head, and a tail that in the male is spread fanlike in display. (W)

0342b uredinales

A group of parasitic Basidiomycetes, including about 2000 species. The mycelium lives inside the host plant, spores being formed in pustules on the surface of the host. Some species pass part of their life on one host and part on another. Some have a complicated life history, forming uredospores, telentospores, basidiospores,

(1593M)

spermatia, and aecidiospores; others omit one or more of these kinds of spores. The Uredinales are popularly known as rust fungi, e.g., the destructive wheat rust.

0343 vapour pressure, vapor pressure (A) 551.571
 tension de vapeur

Pressure exerted by a vapour when it is
in a confined space. (IGH)

Pression exercée par une vapeur dans un
espace clos. (GIH)

0344 velocity, wind 551.552 551.553
 vitesse du vent

Vector drawn in the sense and direction
of the wind and of length proportional
to the speed of the wind. (WMO)

Vecteur dans le sens et la direction du
vent et de la longueur proportionnelle
à la vitesse du vent. (WMO)

0344a virus

A particulate infective agent smaller than accepted bacterial forms, usually invisible by light microscopy, incapable of propagation in inanimate media and multiplying only in susceptible living cells, in which specific cytopathogenic changes frequently occur. Causative agent of many important diseases of man, lower animals, e.g., poliomyelitis, foot and mouth disease, tobacco mosaic.

0345 wall effect

Radiation impinging on a barrier or wall of a container and thereby causing secondary radiations emission. This hinders accurate determination of radiation amount, type and effects.
(AMS)

0345a water, absorbed
eau absorbee

Water held in the soil and having physical properties not substantially different from ordinary water. (V)

(1593M)

Eau retenue dans le sol et ayant des propriétés physiques ne différant pas essentiellement de celles de l'eau ordinaire. (V)

- 0346 water, adhesive syn. water film, water, 556.322
intergranular film; water, pellicular
(1) See also groundwater, attached;
water, funicular
eau pelliculaire voir aussi eau de
rétention, eau funiculaire

Water held in the soil by molecular attraction to the walls of rock or soil particles in the form of a film. (CID)

Eau retenue dans le sol par les forces d'attraction moléculaire et formant une pellicule autour des particules solides constituant le sol. (CID)

- | | | | |
|------|----------------|--------|-------|
| 0347 | water balance | 551.57 | 556.1 |
| | bilan hydrique | | |

Balance of input and output of water within a given defined hydrological area such as a basin, lake, etc. taking into account net changes of storage.
(IGH)

Bilan des apports et des sorties d'eau
à l'intérieur d'une zone hydrologique
bien définie, telle qu'un bassin, un
lac, etc, compte tenu des variations
nettes de l'emmagasinement. (GIH)

0348 water budget

Same as hydrologic accounting. (AMS)

0349	water deficit déficit en eau	551.573	;551.117
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Cumulative difference between the
potential evapotranspiration and
precipitation during a certain period
in which the precipitation is the
smaller of the two. (IGH)

Différences cumulées entre l'évapo-
transpiration potentielle et la
précipitation pendant la période où
c'est, des deux termes, la précipi-
tation qui à la valeur la plus faible.
(GIH)

0350	water demand see also water need besoins en eau	556.18	;628.1
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(1593M)

Actual quantity of water required for various needs over a given period, as conditioned by economic, social and other factors. (IGH)

Quantité d'eau requise au cours d'une période donnée pour différents usages conditionnés par la vie économique et sociale. (GIH)

0351	water, gravitational syn. water, mobile see also water, vadose eau de gravité voir aussi eau vadose	556.322.4
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Water in the unsaturated zone which moves under the influence of the force of gravity. (IGH)

Eau de la zone non saturée qui circule librement dans le sol sous l'effet de la pesanteur. (GIH)

0352	water loss pertes d'eau	551.573	556.13	636.87
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(1) Sum of water lost from a given

land area during any specific time by transpiration from vegetation (agricultural crops or native vegetation) and building of plant tissue, by evaporation from water surfaces, soil moisture and snow, and by interception.

(2) In irrigation the losses made up of seepage and evaporation from canals and ditches, water wasted from the canal system, excess water drained from land surfaces, and water lost from the soil by deep percolation below the root zone. (GHM)

(3) Same as evapotranspiration (3). (AMS)

(1) Quantité totale d'eau perdue d'un territoire donné, durant une période de temps déterminée, par transpiration de la végétation (cultures agricoles ou végétation naturelle) et formation du tissu des plantes, par évaporation de la surface des eaux, du sol humide et de la neige et par interception.

(2) En agronomie, pertes dues aux fuites par des fissures dans un système de canaux ou de fossés, par le drainage d'eau excédentaire et par la percolation profonde au-dessous de la zone des racines des plantes. (GHM)

(3)

0353	water need see also water demand	556.18
	besoins en eau	

(1593M)

Quantity of water required, over a given period, to fully satisfy a known or estimated requirement. (IGH)

Quantité d'eau nécessaire, pendant une période donnée, pour la satisfaction complète de besoins connus ou estimés. (GIH)

0354 water requirement

(1) In irrigation engineering, the total quantity of water required to mature a specified crop under field conditions. Includes applied irrigation water, precipitation, and ground water available to the crop.

(2) In plant physiology same as transpiration ratio. (AMS)

0355 water table

(Also called phreatic surface, ground-water table.) The surface defined by the upper limit of the zone

(1593M)

of saturation, or the surface or unconfined ground water. No water table exists if the ground water is confined by an overlying impermeable stratum, as in the case of artesian ground water. (AMS)

0356 wet bulb

Contraction of either wet-bulb temperature or wet-bulb thermometer. (AMS)

0357 wet-bulb depression

The difference in degrees between the dry-bulb temperature and the wet-bulb temperature. (AMS)

0358 wet-bulb thermometer

In a psychrometer, the thermometer that has the wet, muslincover bulb and therefore measures wet-bulb temperature. (AMS)

(1593M)

0359 white frost

- (1) A relatively heavy coating of hoarfrost. With respect to vegetation, a white frost is less damaging than a black frost for at least two reasons: (a) it tends to insulate the plant from further cold; and (b) it releases latent heat of fusion (albeit slight) to the environment.
- (2) Colloquial term for a deposit of fine rime.
- (3) See black frost. (AMS)

0360	wilting point syn. permanent wilting percentage, permanent wilting point point de flétrissement	551.579.5	58.05
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Moisture content of the soil under which the leaves of plants growing in that soil become permanently wilted. (CHOW)

Teneur en eau du sol, exprimée en pour cent du poids du sol sec au moment où les feuilles d'une plante qui pousse sur le sol commencent à se flétrir d'une façon permanente. (CHOW)

0361 windbreak

Any device designed to obstruct wind flow and intended for protection against any ill effects of wind.

Installations of this type include shelterbelts, snow fences, and rain-gage shields. (AMS)

0362 xerophyte 581.526.5
xérophytes

Plant which is growing under arid climatic conditions. (IGH)

Plantes qui croissent dans des climats arides. (GIH)

0362a yak

A large wild or domesticated ox (Bos grunniens syn Poephagus grunniens) of Tibet and adjacent elevated parts of central Asia having short smooth hair on the back and long wavy hair on the breast, sides, legs and tail, being in

(1593M)

the wild blackish brown and up to about six feet high at the shoulder and 1200 pounds in weight, but smaller and varying in colour under domestication, and living as a beast of burden and source of flesh, milk, hide and hair.
(W)

0363	yield, optimal rendement optimum	556.18	556.382
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Amount of water which can be withdrawn annually from an aquifer or from a basin according to some pre-determined criterion of optimal exploitation.
(IGH)

Quantité d'eau qui peut être extraite annuellement d'une formation aquifère ou d'un bassin et utilisée en tenant compte de certains critères préalablement fixes d'exploitation optimale.
(GIH)

0364	zone, arid zone aride	551.585.5	551.45
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Zone in which evaporation always exceeds precipitation. (IGH)

Zone dans laquelle l'évaporation excède
la quantité de précipitations. (GIH)

0365	zone, humid	551.581
	zone humide	

Zone in which precipitation exceeds
potential evaporation. (IGH)

Zone ou les précipitations excèdent
l'évaporation potentielle. (GIH)

0366	zone, semi-arid	551.585.5	556.1
	zone semi-aride		

Zone in which evaporation frequently
exceeds precipitation. (IGH)

Zone où l'évaporation excède
fréquemment les précipitations. (GIH)

